

DOCTOR OF PHILOSOPHY

Composing the Sublime Rituals in Electroacoustic Music

Sakellariou, Georgios

Award date:
2017

Awarding institution:
Coventry University

[Link to publication](#)

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of this thesis for personal non-commercial research or study
- This thesis cannot be reproduced or quoted extensively from without first obtaining permission from the copyright holder(s)
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Composing the Sublime: Rituals in Electroacoustic Music

By

Georgios Sakellariou

September 2017



*A thesis submitted in partial fulfilment of the University's requirements
for the Degree of Doctor of Philosophy*

Table of Contents

Acknowledgements

Abstract

Introduction (page 1)

1. Background (page 1)
2. Between the finite and the infinite (page 2)
3. The thesis and its content (page 4)

Part 1 – Theoretical Investigation

Chapter 1: Literature Review (page 7)

- 1.1 Electroacoustic Music and Ritual (page 7)
- 1.2 Rituals and music (page 9)
- 1.3 The search for meanings in post-Enlightenment society (page 11)
- 1.4 Anthroposophy (page 13)
- 1.5 Music and spirituality (page 15)
- 1.6 Social participation and function (page 17)
- 1.7 The re-vision of ritual (page 20)

Chapter 2: The Road to Knowledge (page 21)

- 2.1 Introduction (page 21)
- 2.2 Experience as knowledge (page 22)
- 2.3 Conducting fieldwork: Return to Anastenaria (page 23)
- 2.4 Creative Methods: Field recording and studio work (page 27)
- 2.5 Dionysus and Apollo (page 30)

Chapter 3: Acousmatic Musicking (page 34)

- 3.1 Introduction (page 34)
- 3.2 Resound in all directions (page 35)
- 3.3 Profound Listening (page 37)

3.4 Social Action and Participation (page 39)

Part 2 – Analysis of electroacoustic compositions

Chapter 4: Everything emanating from the Sun - Field recording composition as hierophany (page 42)

4.1 Introduction (page 42)

4.2 Music and the environment (page 42)

4.3 The residency in Mooste (page 44)

4.4 Field recording in Estonia (page 45)

4.5 From field to studio (page 49)

4.6 From studio to performance space (page 50)

4.7 Return to the studio – Memory, material and tempo (page 54)

4.8 Hierophany (page 55)

Chapter 5: In Aulis - Music as a sacrificial act (page 58)

5.1 Introduction (page 58)

5.2 The residency in Aulis (page 58)

5.3 The temple of Artemis in Aulis and the myth of Iphigeneia (page 59)

5.4 Music and sacrifice (page 62)

5.5 Recording in Aulis (page 63)

5.6 Sonic reconstructions (page 66)

5.7 Beyond Aulis (page 70)

Chapter 6: Shift - From routine to ritual (page 73)

6.1 Introduction (page 73)

6.2 The residency in Kaunas (page 74)

6.3 Recording in factories – The sounds of the machines (page 75)

6.4 Unfitted Dust – Installation and performance (page 79)

6.5 Unfitted Dust – Duration and audience participation (page 82)

6.6 Mechanical rhythms (page 84)

6.7 The dust of time (page 86)

Chapter 7: Silentium - Electroacoustic music and religiosity (page 88)

7.1 Introduction (page 88)

7.2 The residency in Prague (page 88)

7.3 Worshipful silence (page 90)

7.4 Bells (page 91)

7.5 Interiors (page 94)

7.6 Organs (page 94)

7.7 Studio work (page 98)

7.8 The performances (page 100)

7.9 Sonic identity (page 102)

7.10 Electroacoustic music and spirituality of sound (page 105)

7.11 Return to silence (page 106)

Epilogue (page 108)

References (page 115)

List of Figures (page 125)

Appendix I (page 127)

Audio Examples (*available on submitted USB stick*)

Appendix II (page 128)

Ethical Approval Certificates

List of Portfolio Compositions *(available on submitted USB stick)*

1. Everything emanating from the Sun (2015)

- First performance
Event: Sound | Place exhibition
Place and Date: Goldsmiths University (London, UK), 5 May 2015
- Publication
Format: Online/Digital
Label and Date: Crónica (Portugal), 31 January 2016
url link: <http://www.cronicaelectronica.org/releases/102>

2. In Aulis (2015)

- First performance
Event: INTIME 2015 Symposium
Place and Date: Coventry University (Coventry, UK), 24 October 2015
- Publication
Format: CD
Label and Date: Unfathomless (Belgium), to be released February 2018

3. Shift (2015)

- First performance
Event: Cotemporal Encounters exhibition
Place and Date: Kaunas Technology University (Kaunas, Lithuania)
3 October 2015
- Publication
Format: Online/Digital
Label and Date: No Type + Panospria (Canada), 9 September 2016
url link: http://www.notype.com/drones/cat.e/pan_096/

4. Silentium (2016)

- First performance
Event: Klingt Gut! symposium
Place and Date: Arts and Media campus (Hamburg, Germany), 28 May 2016
- Publication
Format: CD
Label and Date: Pogus Productions (USA), November 2016

Acknowledgements

I am deeply grateful to Dr Tom Williams, my Director of Studies, for his valuable guidance and continuous encouragement, as well as to Dr Christopher Hobbs, my second supervisor, for his insightful support. Also, I owe my deepest gratitude to everyone at the Faculty of Arts and Humanities at Coventry University who offered me the opportunity to embark on this inspiring journey.

Many thanks to my family and friends for their ongoing patience and above all to my partner in life, my wife Giedrė.

Abstract

Can electroacoustic music concerts become places of ritual? This question is the starting point of an analytical and practical investigation of the societal interplay of electroacoustic music and the sublime experience of acousmatic listening. The research highlights a common emphasis on the spiritual qualities and social values between electroacoustic music and religious rituals. The aim is to elevate the acousmatic concert into a powerful process of transformation.

Furthermore, the research expands the framework of electroacoustic music and suggests methods for further theoretical interrogation and artistic practice. A practice-based and qualitative methodological approach is adopted, including reflective journaling, fieldwork, studio composition and artistic collaboration. Additionally, the research draws inspiration from ethnomusicological and anthropological contexts to establish a link between the evocative and transcendental atmosphere of religious rituals and electroacoustic music concerts.

At the core of the research is the creative practice: a portfolio of four substantial electroacoustic music compositions which draw upon the communal experience of listening in concerts, the communication between composer and audiences and their interaction with performance spaces and the rest of the physical and supernatural world.

Introduction

1. Background

In 2008, in a village in north Greece, I attended “Anastenaria”, an ancient ritual where participants enter into trance and walk barefoot on burning coals. Music is a catalyst in Anastenaria, an essential tool that gives shape and meaning to the ritual. “The musicians walk around the fire animating the fire-dancers, who squeeze the live red coals with unrestrained mania, irresistible power and various expressions” (Makrakis 1982: 56). No signs of burns or pain are shown by the fire-walkers who claim they see visions of saints who protect them from the fire. This phenomenon remains a psycho-physiological mystery that appears to defy natural laws and inspires human imagination (Makrakis 1982: 56).

The unusual experience of attending Anastenaria had a powerful effect on my practice as a musician and gradually fuelled the framework of my research on rituals and electroacoustic music. Through my work I started exploring the relation between music and trance and the way music is used to connect the physical with the spirit world. Witnessing people fire-walking while listening and dancing to the intense and energetic music of the ritual challenged my perception of reality and intensified my pre-existing interest in the transcendental power of music. Anastenaria motivated me to compose and perform with the aim of invoking spirit worlds. This aim originates in primitive eras when humans were performing music to communicate with divine beings and connect with the supernatural. In addition, music was used for communication between people living in the physical world and bonding together through their communal experiences and activities (Hendy 2013: 8-10).

A vital question in my investigation of Anastenaria was: What is being done there, why and for whom? This question was redirected in an attempt to identify the utilitarian function of electroacoustic music in contemporary social settings. How can electroacoustic music express and manifest spiritual and metaphysical concerns? What are its socio-aesthetic values and purposes and how do practitioners and listeners access and connect with it? In recent years these previously ignored questions have been raised more frequently and persistently in the discourse of electroacoustic music practice. In his paper *The ritual of the electroacoustic concert*, Canadian composer Robert

Normadeau (2014) discusses the difficulty of electroacoustic music in reaching a wider audience, the difference between social and musical ritual and the possibility of finding alternative ways of presenting electroacoustic music. Composer and scholar Leigh Landy (2011) focuses on the “why” of the work, the social role of the composer and the visceral experience of electroacoustic music with the purpose of discovering formulas that will construct meanings and enable music to become relevant in the lives of “communities of interest”.

The investigation of Anastenaria was essentially a method to explore electroacoustic music practice, to compare a religious ecstatic ritual to electroacoustic music concerts and discover possible common elements, qualities and purposes. Observing and examining the ways the participants of Anastenaria connected with each other, with their music and with the physical and spiritual world identified the areas of study and interest of my research: the mystical dimension of sound and the socio-aesthetic meanings of electroacoustic music. The goal is to recognise and expand its social impact and value and elevate listening to electroacoustic music into an intense experience aiming at what composer Iannis Xenakis called “a total exaltation [...], a truth immediate, rare, enormous and perfect” (1992: 1).

2. Between the finite and the infinite

How can exaltation and truth be reached? How can ritual and transcendence be acknowledged and explored through electroacoustic music practice? What research strategies can be employed to examine the ethereal and supernatural? As author and “cyber-guru” Erik Davis writes, “perhaps the question is less which path you find yourself on but how you move to the space itself. How do you engage its polymorphous shapes, the density of its data, the absence of traditional clues?” (2010: 150). This research was a journey into the unknown Other, into a mysterious, formless and ineffable Absolute that escapes rational explanations and, as Russian director Andrei Tarkovsky claimed, is “only attainable through faith and creative act” (1989: 39). The research was an intensive quest for truth, discovered through experience and social interaction and validated as empirical and spiritual knowledge. Already towards the end of the 19th century Leo Tolstoy had realized that knowledge does not reply to any philosophical question and “any resolution remains indefinite”. However, in these

vague and ambiguous metaphysical answers there is always “a relationship between the finite and the infinite” (Tolstoy 1987: 53). And it is this relationship that was examined in my research, established and extended between the physical and the otherworldly, the modern and the archaic, the personal and the communal, the profane and the divine, the routinized and the ecstatic.

The research was practice-based, initiated in electroacoustic music composition and performance, and generated ongoing practical and theoretical responses. It was conducted in a post-positivist and qualitative methodological framework as it attempts an interpretation of electroacoustic music practice that will remain open to multiple emerging perspectives and revised meanings, without the aim to determine a quantifiable and universal truth (Green and Stinson, 1999). The research raised exploratory approach questions of “what” and “why”, with an interest on meanings and reasons rather than “how”, that investigates technical issues. (Wisker 2008). The main outcome, a series of compositions relating to the conceptual framework, provides a platform for intellectual and emotional exploration, featuring aesthetical considerations, and audience engagement, suggesting a utilitarian view on electroacoustic music.

In artistic practice the methodological choices, approaches and tools are, to a great extent, aesthetical and can stand as instruments of artistic research in their own right (Borgdorff 2015). The methods used in this research are divided in theoretical, participatory and creative. Firstly, theories related to ritual and electroacoustic music were studied and built through book-based research, accompanied by literature reviews, academic papers and articles. The methodological framework of the study included triangulation and more specifically it compared strategies and theories from the disciplines of ethnomusicology, anthropology and theology that widened the perception of the examined subjects. Secondly, participatory methods involved direct human experience, including my own, and contact with other researchers, artists and members of the public. These methods encompassed collaborations, ethnographic fieldwork, open-ended interviews and group discussions. Additionally, the research was strongly influenced by experiencing work of other artists in the form of concerts, films, texts and CD publications. Thirdly, the creative practice of the research essentially started with reflexive journaling, as a strategy to generate initial thoughts. Furthermore, the field recording of environmental sounds, together with electroacoustic studio work were key methods of the research. The outcomes of the studio work were presented in concerts

and published by international record labels on physical and online formats. Lastly, every documentation method also had a creative aspect. Documentation of research processes took the form of sketches, notes, recordings, photographs and journal entries, while the compositions, as completed fixed media musical pieces, acted both as documentation and research outcomes. The double capacity of the compositions was an intelligible subject for further critical analysis of the identity of the artwork.

3. The thesis and its content

The writing of the thesis had an integral role in the creative processes, it functioned as a methodological tool that allowed me to broaden the perception of my research as writing provided access to areas of thinking that were inaccessible in other ways. Japanese composer Toru Takemitsu was using writing to filter his thoughts and “give clear shape to the amorphous and irregular musical ideas” (1995: ix). From a similar standpoint, Tarkovsky emphasised the effect of writing in the process of film-making and argued that “it’s all too easy to be satisfied with glimmers of intuition, rather than sound, coherent reasoning. The wish to avoid expending my reflections in such a way made it easier for me to take up pencil and paper” (1989: 15). In accordance with early 21st century technology, Tarkovsky’s traditional tools for writing were replaced by a computer keyboard and screen and I used writing for engaging in analytical exploration of the questions and ideas that were negotiated in my compositional work. Ultimately, this thesis is not a manifest of a fixed theory in support of my artistic practice nor a mere documentation of the research process but a creative outcome with the primary aim to stimulate and encourage a dialogue about the spiritual and social function of electroacoustic music and the possible directions it could take in the future in order to amplify its impact on the listeners.

The chapters are grouped in two parts. In the first one I define the key terms of the research – ritual and electroacoustic music – and discuss the use of sound in religious ecstatic rituals as well as the relation between music and spirituality. The discussion continues with an overview of the role of ritual in contemporary Western society and how it has been influenced by the dominance of scientific thinking and rationalism. In addition, I interrogate the current social conditions and settings of electroacoustic music concerts and analyse the ways composers and audiences perceive and value the

experience of listening to acousmatic performances. Furthermore, I describe in detail the ontological and epistemological standpoint of the research as well as its methods and strategies by giving exhaustive information about the rationale of the methodology, ethical concerns, proof of research validity, downfalls and insights. The methodology analysis encompasses an outline of creative artistic practices, mainly the field and studio work, featuring the use of environmental recordings in electroacoustic composition, strategies for digital sound manipulation and aesthetic approaches on duration and structure of the compositions. Lastly, I present the concept of “Acousmatic Musicking”, suggesting it as an active method of audience participation in electroacoustic music performances through profound listening.

The second part of the thesis includes the composition analysis chapters. The four works included in the portfolio are discussed in detail, with information about initial concepts, recording locations of sonic material, studio experimentation and subsequent compositional decisions, as well as description, analysis and reflection on the works’ live performances. The chapters are written in chronological order and respond to several research questions that were examined and shared within an academic context and through creative practice, often involving collaboration with fellow artists. Moreover, I articulate on how I developed and improved my techniques and awareness on recording and performing and how reflection on research outcomes lead to further questions and revised meanings.

The epilogue of the thesis ponders on the next steps towards embedding the spiritual in electroacoustic music, not as a precondition but an ongoing discovery. It reflects on how Acousmatic Musicking can affect and shape the ontological, aesthetic and social function of electroacoustic music practice. Identified as ritual in its own right, Acousmatic Musicking, combining theoretical exploration, reflection, embodiment, participation, performance, aesthetic pleasure and exaltation, is a stimulation of senses and a pathway to knowledge. It is resisting definition by emphasizing the unforeseen, the mysterious and the unknown. It is my proposition that this is what initiates the curiosity, challenge and excitement of electroacoustic music.

Part 1: Theoretical investigation

Chapter 1 – Literature review

1.1 Electroacoustic music and ritual

Both key terms investigated in this research, ritual and electroacoustic music, have been studied extensively in anthropology, musicology and other scholarly disciplines thus a clear-cut definition cannot be applied to either of the two. In this thesis, the discussion covers practical features - the doing, acting and performing - and theoretical background - the ideas and concepts about ritual and electroacoustic music's utilitarian function and social role.

Electroacoustic music originated in the early 1950s from the combination of the techniques and ideas of “Musique Concrète” and “Elektronische Musik”. Musique Concrète was developed in France in the late 1940s by Pierre Schaeffer who was composing music based on recorded sounds of the environment. Elektronische Musik was a term initially used in 1949 in Germany to describe music made exclusively with electronically generated sounds. Although Musique Concrète and Elektronische Musik were considered polar opposites (EARS 2 n.d.), they were brought together with the inception of electroacoustic music.

Since its beginning, electroacoustic music has been used to describe aesthetically diverse works encompassing electronic sound technology. Nowadays the description can expand from academic compositions performed in acousmatic multi-channel concerts to noise and glitch improvisations with laptops, synthesizers, field recordings or amplified objects. Throughout the years, alternative terms such as experimental music, tape music, algorithmic composition, computer music and sound art have been used in an attempt to clarify the art of composing with sounds. Composer Trevor Wishart suggested the term Sonic Art (1996) while Leigh Landy's proposal is sound-based music (2007). The plethora of terms recruited to define the practice highlights its ambiguity - what it is - and the varied perceptions of what it aims to communicate – what it does.

This research embraced the ambiguity and variety of perceptions with the purpose to avoid the possible limitations that categorization and strict definition can impose on electroacoustic music, or any other studied subject. The study focused on acousmatic music, specified from a purely technical perspective as electroacoustic music without a

visual element. By examining the setting of loudspeakers-only performances, the purpose was to identify and investigate what kinds of relationships are established, between who, and, moreover, what ideas and values are commonly shared and celebrated. My argument is that the acousmatic setting of electroacoustic concerts, with the lack of typical performance staging and visual stimulation, can be a platform for listening experiences reaching ecstatic realms. Furthermore, its social conditions can potentially create strong relationships between composers and audiences.

Ritual, the second key term of the research, is not only resistant to a clear definition but it is best to even avoid defining (Kapferer 2005). In general terms, to explore ritual, is “to reflect on human nature, society and culture” (Stephenson 2015: 1). Ritual is foremost an action that covers a wide range of activities - a handshake when two people meet, a wedding, a Sunday Mass, a graduation ceremony or attending a football game - and can be distinguished from conceptual aspects of religion, such as beliefs, symbols and myths (Bell 2009: 19). Ritual, thus, is a “meta-category”, including “both religious and non-religious rites, the traditional and the new, the prescribed and the improvised, the human and the non-human” (Stephenson 2015: 2-3). Additionally, ritual creates collective ideas and beliefs that shape the reality of a community and as a process it generates the conditions for individual and social existence (Bell 2009: 20). Furthermore, ritual decelerates the fast tempo of mundane reality and creates a virtual one where everyday chaos is transformed into order (Kapferer 2005). From a theological perspective, the transformation of immediate to supernatural reality, where the divine is encountered, creates the notion of the sacred (Eliade 1957: 12). According to anthropologist Bruce Kapferer (2005), the meanings of ritual are embedded in its internal dynamic and structure. Ritual functions beyond symbolic representations of external ideas and values, it is an autonomous activity, an addition to the world, a creative method of engaging with life and facilitating changes on a personal and social level.

With ritual covering a wide range of meanings, activities and functions, this research examined it primarily as a social act of gathering with the purpose of generating and interpreting aesthetical experiences (Stephenson 2015: 25), and, additionally, as an organized behaviour which affirms, explores and celebrates the ideal way of how relationships should be established within a community and, in extension, with the rest of the world (Small 1998: 95). The research conceptually and contextually linked the act

of ritual to music composition and performance by examining their common emphasis in the sense of community, connection and transformation (Finnegan 2003). Ritual is used as a “something-to-hold-on-to” factor (Landy 2007: 28) for audience engagement and participation in electroacoustic music performances and a tool to establish relationships between sound, performance spaces and audiences.

1.2 Rituals and music

Around the globe and throughout the centuries human beings have been performing rituals with the purpose of finding meanings and establishing social bonds. These activities have always been, and still are, an integral part of humans’ lives and fate (Driver 1998). Music has a powerful and essential role in rituals, it is the medium that transforms the participants’ awareness of space and time and their “being-in-the-world” (Rouget 1985: 122).

The transformational ability of music is evident in rituals performed by societies and cultures that are very distant, both geographically and historically. In Sufism, the mystical dimension of Islam, music is a primal catalyst of the practice and Sufis consider listening a skill that establishes a connection to God (Becker 2004: 82). Throughout history shamans have been entering altered states of consciousness, mostly by performing repetitive drum patterns that enable their spirits to travel between unseen worlds (Doore 1987: 3). In the Afro-Brazilian religion Candomblé music is so intensively used in the rituals that it is almost synonymous to the religious practice and eventually leads the participants to believe they become possessed by deities (Bohlman 2002: 7). During their rituals, the Bacchae, the worshipers of the ancient Greek god Dionysus, would fall into ecstasy with the use of noisy bell sounds in an escape from the mundane world, while communicating with something elusive and ethereal (Hendy 2013: 99). These examples highlight that there is a power, triggered by emotion and imagination, that shifts the human perception in various ways and directions; by connecting with the numinous, by entering realms beyond physical reality or by possession, a condition that can be described as “enthusiasm”, the Greek word that means “divine essence within”. Music is the tool that enables and socializes this shifting power, it shapes the ritual’s form and controls its process (Fachner 2006).

What is the effect of listening to music in the social condition of a concert? How does sound affect the listener who is sitting quietly through a musical performance? In her book *Deep Listeners* (2004), Judith Becker, a scholar and researcher of musical and religious studies, suggests that listening outside a religious context can, nonetheless, create a religious emotion, mainly that of a connection with a divine power. She argues that people who submerge into deep emotional experiences while listening to music can share similar characteristics with those who fall into trance and reach higher states of consciousness during a ritual with religious context. She links the secular listeners, the “Deep Listeners” as she calls them (a term adapted from Pauline Oliveros’s “Deep Listening” practice), to the “Ecstatics”, the participants of sacred rituals, claiming that both groups are potential “Trancers” (another term invented by Becker) who respond strongly to the stimuli of music by experiencing an intense arousal of emotions. This emotional response is “characterized by focus, by duration, by limiting the sense of self, and by the surety of special knowledge – the gnosis of trancing” (Becker 2004: 68).

Becker established the term “trancing” (2004: 7) with the aim to emphasize the idea that trance is not a static and fixed form but a dynamic, ongoing process. The idea of using the word as a verb, instead of a noun, is taken by author and musicologist Christopher Small who firstly introduced the term “musicking” in 1987 (1987: 50). According to Small, the meaning of music is found in the activity of musicking, the vibrant and continuous process of performing music. Musicking brings together composing, rehearsing, performing and listening as aspects of a single ritualistic activity through which the participants affirm, explore and celebrate the relationships that constitute their social identity. These relationships are extended among the participants of the ritual and the ritual’s environment, among different social groups and, furthermore, between human beings and the natural as well as the supernatural world, the rest of the cosmos (Small 1998: 94).

The ritual of musicking not only creates meaning in music but, moreover, is a model that represents the ideal way of seeing and being in the world. It brings into existence experiences that communicate with the infinite and negotiates ethical and philosophical concerns. When the musical performance is efficient it triggers emotional reactions, it is becoming part of an experienced reality, beyond theoretical thinking *about* reality. This research interrogated and applied Small’s concept of musicking to electroacoustic music. In Chapter 3, I introduce Acousmatic Musicking as a way of engaging with

electroacoustic music and analyse how its ritualistic character informs and influences acousmatic performances and their impact on audiences.

1.3 The search for knowledge in post- Enlightenment society

The meaning of music depends on the social settings and expectations, shaped and informed by the history, religion and geographical location of each culture or community. Music making is, on the one hand, producing musical sounds and, on the other, the construction of the cultural framework that defines music (Titon 1997: 100). Anthropologist Clifford Geertz claims that the analysis of cultures is interpretive, therefore subjective, in search of particular meanings, rather than scientific, in search of universal and undeniable laws (1973: 5). Following a Geertzian approach, ethnomusicologist Jeff Todd Titon (1997) describes the differences between explanation, which derives from scientific investigation and allows control over the object, and understanding, as an experiential way of claiming knowledge in the humanities by relating with the study object. In his attempt to find ways for a better understanding of music, Titon, similar to Small, is thinking about relationships, rather than collecting and analysing objects as data. While conducting field work and reflecting on it, his attention is directed on the experience, as a way of knowing the world, connecting with it, living in it and not merely thinking about it.

Emphasis on experience has been increasing the past years in the field of ethnomusicology with the purpose of bridging the gap between fieldwork (experience) and scholarship (observing and writing) (Kisliuk 1997: 24). In parallel, cultural relativism requires to be combined with scientific universalism in order to reach a complete understanding of music and its meanings (Bohlman 2002: ix). Renowned French anthropologist Claude Lévi-Strauss claimed that there will always be a gap between scientific answer and a new question, however science can increase the quality and quantity of answers (1995: 13-14). With a similar approach, Becker argued that all scientific perspectives are “partial perspectives” (2004: 9) and for her research on Deep Listeners she brought together neuroscience and biology with ethnographic fieldwork. She claims that the phenomenon of trance and the function of music are processes that are both somatic (physical) and cognitive (psychological) simultaneously (Becker 2004:

29) and should be investigated by setting a common ground between the particular humanistic and the universal scientific approach (2004: 4). Her intensive fieldwork in Southeast Asia, where she attended, studied and documented a great number of rituals, is combined with scientific observation of the functions of the brain during trance experiences, by monitoring the activities of the ANS (Automatic Nervous System), the lower part of the brain. Becker concludes that the brains of both groups of people, secular Deep Listeners and religious Ecstatics, produce similar neurochemical reactions. Secular listening provides access to hidden worlds, invisible and intangible, like the spirits summoned in religious rituals. In both cases, music “invokes a realm of unseen power and limitless extension” (Becker 2004: 106).

Despite the current introduction of experience as a valid research tool, scientific thinking, rationalism and materialism, the priority of observation and calculation over direct experience have been dominating human thought since the Enlightenment (D'Aquili and Newberg 1999). The basis for Western scientific thinking originates in the Cartesian heritage that separated the mind from the body, the ego from the “Other”, and created the object/subject dichotomy (Stephenson 2015: 95). With the bio-psycho-spiritual unity disrupted, Western people have replaced the self with what theologian John J. Pilch (2006) calls the “meta-self”, an observer who consciously keeps distance from the experiences in the attempt to remain objective towards them and calculate them with accuracy. This disruption affected the arts which after the Renaissance became anthropocentric. Instead of being inspired by folklore and empirical traditions and aiming towards a reconnection with God, art became “serious knowledge” and, by embracing contemporary scientific thinking, it started becoming capable of being measured and categorized (Moore 1964: vii). Nowadays, artists are often required to be objective; artistic discoveries and creations are subject to verification in a quantitative manner (Green and Stinson 1999).

Similarly, the embodied action of ritual, contradicting Cartesian rational thought, becomes an obstacle to objectified knowledge because its values are not measurable or calculated (Stephenson 2015: 96). Moreover, the ritualistic power is suppressed by nation-state and global authorities and ritual is transformed into a norm, a commodity, with the purpose of controlling people’s ideas, behaviors and emotions. It is thus important to underline that ritual, besides aiming at transformation, communication and, ultimately, liberation and healing, can also be a socially harmful act, an instrument of

oppression and manipulation. Furthermore, the prevalence of scientific reasoning has also become culturally dominant and, consequently, ritual as a process of transformation is not only unaccustomed and unfamiliar in Western society but furthermore regarded as negative and unwelcomed (Driver 1998: 159). The idea of losing one's self and not being in full control and consciousness is inappropriate and incompatible to the values of contemporary urban life (Becker 2004: 13).

In the words of Erik Davis, the domination of science in the modern age has banished “the West's mystical heritage of occult dreamings, spiritual transformations, and apocalyptic visions” (1998: 2). Although it appears that the mystical and archetypical desires have been replaced by material progress and cynical thinking, nonetheless, Davis continues, “we are beset with a thirst for meaning and connection that centuries of sceptical philosophy, hardheaded materialism, and an increasingly nihilist culture have yet to douse” (1998: 7). Davis explains that human's metaphysical questions have sneaked under the surface of its scientific and technological achievements, they stay hidden but always remain present in modern techno-culture's subconscious. The questions about the relationships between materiality and spirituality, old as humankind itself, continue to be negotiated on a globalized scale in the contemporary world (Davis 1998: 5).

1.4 Anthroposophy

This research examined the connection between spirit and matter and drew inspiration from Anthroposophy, a spiritual movement initiated by philosopher and architect Rudolf Steiner in the early 20th century, that bridges religion and cognition, science and spirituality. Steiner was particularly interested in the arts as a disciplined method for gaining knowledge and considered the unity of art, science and religion a necessary condition for spiritual evolution. (1964: 57). He described how this unity was fundamental in ancient societies and how urgent it is to reunite the three elements in order to re-establish a connection to the cosmos (1964: 62, 64). Furthermore, he claimed that spirit is knowledge, accessible through a creativity that arises from disciplined training, self-development and inner transformation. With an approach similar to Becker

and Small, Steiner explained that Anthroposophy's content is not a standardized set of ideas but a non-static, dynamic process.

While Anthroposophy connects religion to science, similarly art "forms a bridge across the abyss of religion and cognition" (Steiner 1964: 45). According to Steiner this is the duty of art, which he perceived as a revelation from the world beyond. True art is not concerned with, as he described them, space-and-time thoughts but with eternally-active thoughts (1964: 68), it transcends the moment and space. Therefore, art can only be rooted to the spiritual world which is something ignored in the "materialistic oriented civilization" (Steiner 1964: 46). It is noteworthy that although living a century ago, Steiner was using similar words as Becker or Pilch to express his concerns about how materialistic culture relates to the spiritual and urged for finding ways to dissolve their borders.

Steiner argued that in the physical world human beings observe, and there is a object/subject distance from experience, whereas in the spiritual world they are being observed, by other enlightened creatures. Being the "object", or being *in* the experience means that it is not possible to register and document any sort of data. The meta-self disappears and the experience of the spiritual world becomes ineffable. Nevertheless, Steiner claimed that introspection is a valid tool for scientific observation of the spiritual domain, given the a priori assumption that it exists.

Furthermore, Steiner had some very stimulating thoughts about music. Following Schopenhauer's ideas, he also differentiated music from other arts because "with music [...] we enter directly into that which the soul experiences as the spiritual or psycho-spiritual" (1964: 36). He also wrote that "in music man experiences the world as his own. Now the soul [...] experiences something which lives and vibrates here and now, on earth, in its own soul-spirit nature" (1964: 36). In this spirit, psychiatrist and author Anthony Storr wrote that the higher nature - or spiritual world, or God - is accessible and existing *in* reality rather than in a distant and unreachable realm (1992:105). Steiner was considering music a tool for human beings to experience the world and deepen their relation to it, an idea that underlines music's ritualistic function.

1.5 Music and spirituality

In contemporary Western culture music is performed, at least partly, in concert halls which Christopher Small compares to churches and describes both as “ritual buildings” (1998: 108). In a similar manner, Anthony Storr points out that Nietzsche argued that concert halls and galleries would replace churches as places for communication with the divine (1992: 155). Likewise, contemporary percussionist and improvising musician Edwin Prévost claims that the shaman and the priest have been substituted by the conductor and the soloist and the donation box by the ticket office (2011: 5). Swedish director Ingmar Bergman, however, approaches the subject differently. He believes that art and worship have been separated and this is the reason why “art has lost its creative urge”, and pessimistically concludes that nowadays art is undervalued (Bergman in Moore 1964: viii).

Nonetheless, Small writes that religion, ritual and art have always been a unified activity. Although he admits the separation of art and ritual in contemporary urban culture, he insists that below the surface the two activities are still united (1998: 107). He calls ritual “the mother of all arts” (1998: 105) and claims that walking into a concert hall is like entering another world, leaving the ordinary one behind (1998: 22). The description of musicking - the connection to the otherworldly, the relationships between people and environments, the transcendence, the ethereal dimension of sound - are parts of a participatory activity that can be defined as “religious in nature” (Small 2004: 141). A music performance can be a ritual in its own right by offering something beyond aesthetical pleasure, it triggers a dialogue that will lead to an “almost supernatural communication” (Toop 2004: 21-22).

Looking into 20th century history of Western music, works of several composers reveal a strong spiritual element. In 1910, Alexander Skryabin with his symphonic work *Prometheus*, aimed at fulfilling religious ecstasy, whereas Olivier Messiaen with his *Turangalîla Symphony*, composed in the late 1940s, and *La Transfiguration de Notre Seigneur Jésus-Christ*, a work written between 1963 to 1969, incorporated the sacred in his music and highlighted its ritualistic capacity (Griffiths 1978: 30, 132-133). At the turning of the century these ideas continue to stimulate and influence many composers. In her talk at Southbank Centre in London during an event titled *Politics and Spirituality in the late 20st Century*, composer Sofia Gubaidulina (2013) claimed that all

music is spiritual, it is a reconnection, a “re-legion” (from the Latin verb “legare”, to connect) with the “Other”. Another characteristic example is Estonian minimalist composer Arvo Pärt who entered the most stirring and prolific phase of his career after spending nearly eight years without composing and instead studying Medieval music and Gregorian chant. Since then his music has been deeply influenced by the Christian Orthodox religion and carries a profound spiritual message. The works of Pärt, as well as the music of composers Sir John Tavener and Henryk Górecki from Poland, have been labelled as “Holy Minimalism”, a term used to describe late-20th century music that contains a strong religious and spiritual sentiment. Additionally, the acclaimed British composer Jonathan Harvey, whose work *Mortuos Plango Vivos Voco* will be discussed in Chapter 7, was relating compositional integrity to spiritual enlightenment (Dowens 2009: 39) and his work is inspired by and reflecting on Christian, Hindu and Buddhist spirituality.

The connections between matter and spirit, the human and the divine world have been investigated since the very early years of electroacoustic music. In 1944, four years prior to Pierre Schaeffer’s first tape-music pieces, Egyptian composer Halim El Dahb composed *Expressions of Zaar (Ta’abir al-Zaar)* with the use of a magnetic wire recorder. The piece was based on sounds of female voices performing Zaar, a healing ritual common at that time in North Africa (Bradley 2015). El Dahb explored the spiritual dimension of the ritual through the transformation of the recorded voices into abstract sonic material. Karlheinz Stockhausen, an innovator of Elektronische Musik, perceived music as communication with the divine, a concept manifested primarily with *Mantra*, a composition from 1970 that was heavily influenced by Eastern philosophy. Éliane Radigue, who had worked with Musique Concrète pioneers Pierre Schaeffer and Pierre Henry, like Pärt ceased composing for a period of time and withdrew to focus on Tibetan Buddhism and meditation. When Radigue started composing again, she entered her most productive period and composed her most highly regarded works that were openly inspired by her practice of Buddhism. During a Q&A session after the acousmatic performance of Michel Chion’s composition *Requiem*, the Musique Concrète veteran characterized his piece as a mass which includes the Latin text of the liturgy, thus defining its structure and conceptual framework. In addition, Chion (2016) highlighted his Christian Catholic background and its direct influence on composing the piece.

In recent years, composer and sound designer Kim Cascone (2014) uses meditation as a tool to develop unconsciousness and imagination while listening and Gary Kendall (2011) bridges his experiences in shamanism with electroacoustic music composition. In his essay *The Method is Science, the Aim is Religion*, noise musician Zbigniew Karkowski emphasised the ritualistic function of music that should “open up the sensitivity to this common force that we call God and make everybody aware of it” (1992).

These examples support Erik Davis’s claim that technology has always been, and still is, interwoven with spirituality. Since their invention, the technological tools used in electroacoustic music practice became the means for accessing deep levels of consciousness, for contemplating on the notion of God, for listening to the echoes of ancient spirits, for exploring the ethereal environment. The computer, the mixing desk, the microphone, the loudspeaker replace the shaman’s drum, the Bacchae’s bells and the Sufi’s voices as instruments for manipulation and extension of reality.

1.6 Social participation and function

A concert is ritualistic in design, underlining the importance of communal gathering and performative co-operation (Driver 1998). When audiences are simply attending or observing an event, it can be described and perceived as merely a spectacle, something to be consumed, but when they are active participants, the event transforms into a ritual (Stephenson 2015: 112). Clifford Geertz (1993) suggests that art, and therefore music, is socially constructed, in relation to an era. By accepting this suggestion, a critical question is raised: Which is the society of electroacoustic music? How is its culture defined? To whom are electroacoustic music concerts important, and who is performing and attending them? Are these concerts rituals or spectacles, or perhaps something different?

No audience underground is the term used by musician and blogger Rob Hayler (2014) to describe the underground experimental and DIY music scene. He emphasizes the fact that the participants of the scene (composers, label curators, concert organizers, radio producers etc.) make up the majority of the audience at almost every concert. In other words, the audience consists of people who are actively involved with the music and the

presence of “outsiders” is usually an exception. By examining the constituent of concerts at symposia or conferences, and despite any differences that arguably exist between the so-called underground/post-punk/DIY music and academic electroacoustic composition, it is notable that similarly the audience consists mainly of active participants (fellow composers, scholars and researchers). The phenomenon is also present in contemporary instrumental composition where the concerts are attended by very few people, usually composers themselves or friends of the performers (Hugill 2015).

There are several, even conflicting ways of approaching this. It could be argued that it is pure elitism and music is isolated in its own micro-cosmos and disconnected from the rest of the society. Looking into an academic conference dedicated to electroacoustic music, it has a quasi-scientific format and the specialized knowledge required to become accessible makes it rather exclusive. The general public is not expected to attend, sometimes not even invited, as the events (not only paper presentations but also the concerts) are organized by and addressed to specialists from the academic world. On the other hand, the involvement of the audience shows dedication and commitment. Electroacoustic composers are part of a small, yet vibrant, “community of interest” (Landy 2011), where its active members aim at contributing towards its development. Through the members’ work, research and writings, the community evolves and, hopefully, progresses. Within the community, the members are sharing a common language and understanding, comprising their thoughts, ideas, methods and, of course, their music. Furthermore, there are exceptions to the above descriptions of marginalized concerts. For example, the Metanast collective organizes electroacoustic music concerts in nightclubs and when it comes to contemporary instrumental composition, the organization No Classical Music puts on concerts in bars where the audience can listen to music while having a drink in a more relaxed environment.

What does it mean to present music in the exclusive condition of a conference and what is the reason behind the need to be more open and perform in alternative settings? The differences of the performance environments (a church, a club, a cinema, a disused factory), the decision to perform there and how this affects electroacoustic music, should be interrogated on a compositional, technical, social and philosophical level. Undoubtedly this is a challenging task. People inhabit a rapidly mutating world, a global

village that makes it extremely difficult for composers to find their social voice in it and clearly identify who they are addressing their work to. For this purpose, it is critical to ask: who are composers writing for? This question appears to be in vain, as a definite answer fails to appear. Music is constantly in flux and so is its identity, always dynamic and growing (Benson 2003). Therefore, it is essential to trigger a continuous dialogue that will prevent music from losing its contact with audiences and its relevance with the present day.

In this process, contemporary composers should think more about the listening experience which is neglected and underestimated. Indeed, composers appear to be more interested in innovation or originality (Hugill 2015). However, this innovation and originality is designed to satisfy certain needs and is tailored accordingly to specified requests of institutes, galleries and other establishments of authority (Chondros and Katsiani 2015). This approach creates a danger of adopting imposed criteria for experiencing and evaluating music since in artistic practice there should always be the option of completely rejecting established ideas and going down a very lonely road, perhaps even of no interest at first to anyone but the composer (Croft 2015). This approach might also negatively affect the act of composing by converting it into a standardized and commodified practice where the sense of restlessness and openness disappears (Borgdoff 2008). This is when ritual becomes routine, when aiming for transformation and liberation is replaced by a habitual obligation to serve pre-fixed canons.

Refocusing on the importance of the listening experience and the potentials of the ritualistic model can challenge the norms and aid in clarifying what electroacoustic music aims to communicate, the *raison d'être* of the works, which is of great significance, especially in sound-based composition that often gets drowned into inaccessible self-referential realms (Landy 2011). It will also provide a deep insight on who electroacoustic music is addressing and expand its accessibility to audiences of contemporary music.

1.7 The re-vision of ritual

As discussed in this chapter, ritual plays a fundamental role in the function of a community. Without ritual, a social group misses the sense of belonging and communicating. If ritual is lost, it is certain that it will be re-established but then there is a risk of it being used in an oppressive and authoritarian rather than an explorative and celebrating manner (Driver 1998: 4). Electroacoustic music composer Simon Emmerson (2016) suggests there is a need to reconsider and re-engage with ritual. This research proposes to re-vision the ritual of the electroacoustic concert as a tool to connect the mystical with the scientific, the intuitive with the methodical and the imaginative with the tangible. Through sound and listening, the acousmatic performance can provide the conditions to disregard postmodern cynicism and the frenzied overflow of information and instead discover and express archetypical emotions and metaphysical concerns. Concertgoers are Trancers, as Becker argued, in the sense that they transit (from the Latin word “transire”), they pass through to other worlds. These ghostly worlds can be reached and appreciated intellectually, as challenges of the perception of reality, and physically, as embodied experiences of sonic immersion.

This passing through can potentially lead the listeners to mystical states of consciousness, as defined by American philosopher and psychologist William James. In his lectures given at the University of Edinburgh between 1901 and 1902, James proposed four characteristics that can justify the term mystical: the ineffability of the experience, as a direct result deriving more from feelings rather than thought, a sense of embodied knowledge that follows, the transitory nature of the experience, as transcendence is never permanent but happens only briefly during rituals, and, lastly, the sense of surrendering to a supreme power (2007: 214). In this research, the supreme power is manifested sonically through electroacoustic music practice and the focus is on the emotional responses of listeners and their empirical access to knowledge.

Chapter 2: The road to knowledge

2.1 Introduction

This chapter examines the methodology of my research on rituals in electroacoustic music. I discuss and analyse the methodological approaches, the participatory and creative methods as well as the research strategies that were employed in the composition and performances of the four works of my portfolio. The aim of the research is not to build a theory with the single purpose of supporting its artistic outcomes but generate critical thinking, create personal meanings and trigger original emotions to scholars, fellow practitioners and audiences.

Method, from the Greek word “methodos” (μέθοδος), is a “meta-hodos”, a meta-way, in pursuit of knowledge. Method in artistic research is not a straight line. Theoretical framework and creative practice form “crisscrossing paths that multiply in all directions” (Davis 2010: 150), an amorphous territory that I entered with the aim to discover not so much where these paths could lead to but to chart the struggle required to follow them and initiate a dialogue between journey and goal (Dowens 2009: 44). Knowledge does not exist in the destination, the objective. It is not to be found in Ithaca, but in the Odyssey, the journey, the dynamic action, the doing. Knowledge is the product of holistic experiences, fuelled by myths and discovered in multi-sensory events that are open to varied interpretations and understandings.

By perceiving electroacoustic music as ritualistic action, I composed and performed a series of works to propose a revised perspective of the practice, relating it to inner and communal processes of formulating an extended reality and sustaining meaning within it. “Why bother to improve musical techniques if the aim of the performance is to share a social experience?” (Blacking 1977: 35). In response to ethnomusicologist John Blacking’s rhetorical question, I focused on shifting electroacoustic music performances to socio-aesthetic experiences of transformation. My primary research questions were not musicological or technical but mainly concerned about the social and metaphysical relations between sound, environments, composers, fellow practitioners and audiences. The collected data consist mainly of recorded sounds, digital images and live musical action, a type of data different from written text, and which academic scholar Brad Haseman (2007) calls symbolic data. Similar to journals, literature reviews or field

notes, symbolic data acts not simply as documentation but also as an additional form of understanding the field and the way people engage with and relate to it (Titon 1997).

My research embraced an emancipatory approach as it encompassed a critical perspective, with the purpose of facilitating changes (Green and Stinson 1999). To introduce his concept of Musicking, Small's focal point of exploration was the physical and social settings of a typical classical music concert (concert hall architecture, dress code of musicians, positioning of the orchestra, the price of the admission ticket that determines where its holder will be seated etc.) If Small investigated and questioned something so established and standardized as a classical music concert, I suggest that it is fruitful, if not essential, to place the electroacoustic music concert under scrutiny with the intention to review the practice and re-evaluate its purpose. It is vital to constantly challenge, explore and creatively doubt the traditions and settings of electroacoustic music, not aiming towards their abolishment or devaluation but to bring them into the present day. In other words, the goal of this research is to contribute to both electroacoustic music practice and to the dialogue about it that can be intense, exciting, insightful or shallow, rejecting and annoying, nevertheless in constant flux.

2.2 Experience as knowledge

Research methodology reflects the philosophical framework, the aims of the research as well as the ways of understanding not only the discipline of study but also the world. The methodology of this research was based on the ontological belief that reality "can only be glimpsed through a kaleidoscope of overlapping and even contradictory points of view" (Davis 2010: 181). Every claim about reality not only takes its place in a ceaselessly transmuting cosmos but adds dynamically to its shaping. For the construction of the reality of electroacoustic music, every viewpoint is partial and subjectivity is not only unavoidable but welcomed, as it can extend the perspective and contribute to the discourse about the practice.

The epistemological standpoint of this research is that knowledge emerges from practice and experience. Being both a researcher and creative practitioner, it was critical to exceed theoretical investigation and engage into artistic practice and direct experience as a means for knowledge and understanding (Haseman 2007). Practice involves

subjectivity and constructs a personal, or even confessional, research narrative, while experience, as a “tricky teacher”, can lead to fleeting results and insights and perhaps even deeper levels of confusion (Davis 2010: 322). However, and despite being elusive and open-ended, experience in current scholarship is becoming a topic for “in-depth research exploring the complex and subtle intertwining of cultural expectation, specific setting and individually embodied practice” (Finnegan 2003).

My research was conducted through this framework and I examined the experience of recording, composing, performing and listening as a subject for scholarly investigation. I employed artistic practice as the primary research tool and used reflection on experience to form the narrative of the research. In his book *Noise - The political economy of music*, social theorist and author Jacques Attali, writes that meaning in music is disappearing because music is lacking “the criterion for truth or common reference for those who compose and those who hear. [...] Like science, music then moves within an increasingly abstract field that is less and less accessible to empiricism” (1985: 113). Acknowledging that “the essential tool of art is the unrepeatable experience” (Small 1977: 4), in Chapter 3 I argue that the act of listening with attentive focus is a method to rediscover musical meaning and truth and re-establish a reciprocal relation between composer and listeners.

2.3 Conducting fieldwork: Return to Anastenaria

Considering the role of ethnographic fieldwork as a pivotal research tool in anthropology and ethnomusicology, together with my continuing wish to revisit Anastenaria, I decided to attend the ritual for a second time. On May 21st 2015 I travelled back to the village of Aghia Eleni, near the city of Serres in north Greece, with the purpose to not only relive the intense experience of a fire-walking ritual, but also to gain a level of direct and immediate understanding of its function and values. Additionally, I was wondering about my position towards this phenomenon, and the ways I can relate it to my artistic practice and research. Despite the preceded theoretical investigation and my previous visit in 2008, returning to Aghia Eleni was an unpredictable journey that generated uneasiness and excitement simultaneously. Why

do people walk barefoot on hot coals? What elevates them in a state where such act is feasible? What is the role of music in this powerful experience?

As probably expected, I did not find any conclusive answers to my questions. However, the lack of answers was not discouraging. On the contrary, the experience generated several ideas that fuelled my creative practice and raised additional questions that were negotiated in my research. Furthermore, and perhaps more importantly, I established a relationship with members of the community of the Anastenaria and as I was learning about them I was also making myself known to them, thus defining, or at least attempting to define, my own identity. The fieldwork, as an embodied experience and a process of identity formation, was followed by reflection, triggered by the field notes and the recordings I made in Aghia Eleni, which led to a revised interpretation of the ritual, not in the form of an ethnography, as it would be the case in ethnomusicology (Barz 1997), but as insight and inspiration for electroacoustic music composition and performance.

Anastenaria has been a popular subject of investigation for ritual studies and anthropology. My interpretation, however, coming from a composer's perspective, functioned more as an observatory experience of an ecstatic phenomenon rather than a thorough ethnomusicological or anthropological research. Nevertheless, I still had the responsibility to consider ethical issues raised by my involvement in the ritual, from the recording of publicly performed music and the copyright of musical and recorded material, to the possible effects my research might have on the public image of the ritual and the related worship. The decision regarding the recordings was to only catalogue them in my personal archive, without granting access to anyone else, and not include them in any artistic outcome. I concluded that using recordings of Anastenaria in composition would function as "cultural tourism" and a "model for pastiche" (Hill 2000: 143). This would increase a risk of, firstly, creating a misleading exoticism in relation to the ritual and, secondly, of imposing artificial sentimentality on the work and the listeners. Moreover, my artistic aim is not to represent but generate rituals, with unique dynamics and structures. Although informed by other ritualistic performances like Anastenaria, these original rituals are performed in a poetic and not symbolic manner. They are experiences triggering their own intellectual meanings and emotional responses.

What follows is a brief description of the ritual and a discussion about the insights and relations I established through my fieldwork and how it affected my artistic practice and research. Detailed descriptions and analysis of Anastenaria are provided by anthropologists Dimitris Xygalatas (2012) who has been investigating the effects of extreme rituals around the globe and Loring M. Danforth (1989) who examined Anastenaria in comparison to the American Fire-Walking Movement.

The preparation for the fire-walking included four dances that took place in the “Konaki”, the temple of Anastenaria (a small building where the sacred icons were transferred the previous evening). The music, played by lyre, a bowed string instrument, and large drums called “ntaouli”, started slowly and in low volume and the short melodic and rhythmic patterns were repeated over and over in a slow accelerando and crescendo, until the sound reached a very orotund and almost ear-piercing level. There were also sung lyrics, based on folk stories about the celebrated Saint Constantine. The worshipers danced while holding the icons and occasionally shouted ecstatic screams. Each dance lasted around 20 to 25 minutes and the breaks in between lasted almost as much, or even longer. These intermissions were necessary for the fire-walkers, and the musicians, to physically and emotionally rest and prepare for the next step.

After the fourth dance the fire-walkers prayed, took off their shoes and, together with the musicians, marched in a procession into the sacred circle with the fire in its centre that was located outside the Konaki. The music continued and everybody marched around the fire a few times. Around 10 to 15 fire-walkers started walking on the coals, alone, in pairs or in groups, and repeated the process for approximately 10 minutes, until the coals turned to ashes. Afterwards, the participants returned to the Konaki for the Eucharist and communal dinner which marked the end of that day’s festivities.

In my conversations with members of the Anastenaria community, they mentioned a psychic connection with Saint Constantine. Despite the extreme physicality and embodiment of fire-walking, the action manifested a ghostly entity. Their bodies remained in the physical world but their spirits travelled to the otherworldly. This transcendence of the normal self, resulting from “the intensification of a mental or physical disposition” led to a liberation and exaltation (Rouget 1985: 14). Every person I talked with that evening was not capable of providing a clear explanation about the reasons for their participation in the ritual, they could only declare it is happening for a

good purpose. There is a case of a man who became part of Anastenaria without even understanding how, as he explained, and continued that what he feels when fire-walking is very personal and that the word “ecstasy” ceased to have any meaning after his first experience on the burning coals.

Despite being experienced in a very personal way, the ritual remains a shared activity where people have different roles, some not even immediately related to the fire-walking. There are people who prepare food for the communal dinner, some oversee the fire, while others give water to the dancers and wipe the sweat off their foreheads. All roles are contributing to the ritual and are vital to its success. The most significant role, however, is that of the musicians. Every participant appeared to agree that without music nothing would happen, there would be no ritual. Nevertheless, it was pointed out that the musicians do not understand what they are doing, they have no awareness of how their playing lifts the fire-walkers into ecstasy. Regardless, performing in Anastenaria is something that gives them great pleasure, as they described it.

Although an outsider, the experience of Anastenaria had a deep emotional impact on me and transformed my understanding of the world. For that I was thankful and on my departure from the village I expressed my gratitude to the “Archianastenis”, the official leader of the group. His pleasantly surprising response was that I was not considered an outsider but part of the ritual. Without being certain of what exactly was meant by this, it appears that my interaction with the fire-walkers blurred the Self-Other dichotomy (Kisliuk 1997) and as a participant-observer I became, at least temporarily, a member of their community.

The experience of Anastenaria is impactful but remains, to a great extent, ineffable, occupying a place somewhere in my subconscious. The work of Clifford Geertz established interpretive and literary anthropology as accepted and fruitful scholarly practice. This allowed anthropologist Michelle Kisliuk (1997) to express her fieldwork experience with the BaAka, the forest people in the Central African Republic, in a poetic manner. For the purposes of my research, I replaced poetry with music, with electroacoustic compositions that reflect, without attempting to imitate, the spirit of the fire-walkers. Anastenaria encompassed the key features of a successful ritual that can be adopted and have an integral role in acousmatic music performances: the social bonding, the personally experienced emotions, the relationship between the somatic and

the celestial, the welcoming of outsiders and, most importantly, the fundamental importance of music in reaching mystical states of consciousness.

2.4 Creative methods: Field recording and studio work

Field recording and studio composition were the primary research tools that I used in artistic practice. In this section I provide an overview of the field and studio methods and strategies and in Part 2 of the thesis I describe the particularities of each composition, providing details of how I conceived and engaged into field and studio work, as well as the rationale behind aesthetic decisions and structural design.

Field recording is a broad practice that started in the late 19th century when broadcaster and sound recordist Ludwich Koch made what is arguably the first wildlife recording. Since then, researchers from the disciplines of biology, anthropology and ethnomusicology were travelling across the globe to record and archive folk music and environmental sounds. Through the decades, field recording practice was established and expanded in an artistic and scientific context. Recording sounds of the environment is now considered a common tool in electroacoustic music and sound art.

In my research, field recording, as embodied and creative fieldwork, functioned on three levels. Firstly, it was a process of collecting sonic material for the compositions of the portfolio. The submitted works are based almost exclusively on environmental sounds that according to renowned recordist Chris Watson “generate their own music, their own beauty and a strangeness that couldn’t be contrived in a studio” (Watson on Viane 2007). Secondly, recording sounds of the environment was a way of exploring specific locations and establishing a relationship with them. Through field recording, the visited locations transformed from mere sceneries into places of interaction and performance. Thirdly, recording environmental sounds increased my listening sensitivity and sonic awareness, both important skills for electroacoustic composition. Acute listening became a way of engaging with the world with a special attention to its sonic properties.

The experience in the field revealed that environmental sounds, beyond material for sonic manipulation, are evidence of what author David Toop describes as “patterns of communication with which we share a common bond and meaning” (2004: 51). The

recorded sounds informed compositional models aiming at the construction of an extended sound-mediated cosmos instead of the representation of pre-existing ones. A poet is not describing the world but participating in its creation (Tarkovsky 1989: 41). Similarly, a field recordist is not documenting reality but shaping it. Beyond capturing sonic material, field recording resembles ritual as a mutual interaction with the world and a creative act. Through composing and performing with sounds of the environment, I “return them to the world, in an attempt to influence it” (Hendy 2013: 24).

I define “studio work” as the compositional work that took place in my house in London, with the use of a minimal and easily transportable set of equipment, including a laptop computer, a pair of headphones and an audio interface. With this setup I did additional studio work in artist residencies in which I participated during my research. An exception was the 5.1 mixing of my composition *Silentium*, which was made at the studio facilities of Coventry University. The DAW I used for sound processing, editing and mixing was Reaper. My main techniques were equalization, pitch-shifting, varispeed, looping and parameter automation of my environmental recordings. Additional sound processing was made on Audiomulch, a software that I used for granular synthesis, and Paul’s Extreme Sound Stretch, a tool that allowed me to time-stretch and filter source material and create additional sound files. Nevertheless, several textures of the compositions were created by the juxtaposition of unprocessed field recordings.

In composition work, the studio became an additional place of exploration of sonic possibilities through the digital manipulation of the environmental recordings. During studio work aesthetic considerations were negotiated in an experimental manner that balanced intuition and systematic effort. Concentrated and repeated listening was the fundamental intuitive procedure. It verified when each selection and manipulation of a recording, combination of sound files, automation envelope, structural decision, and the composition in total, made a “now this works well” sense, without a clear explanation or confirmation from an external rule or non-musical idea. Nevertheless, this sense of effectiveness was not a product of chance or working with the sonic material in a random manner but a result of attentive sound manipulation, editing, mixing and generally crafting the composition with persistent focus on the detail of every sonic parameter.

The musical forms were partly informed by theoretical investigation on the relation between music and trance. Scholar and music therapist Jörg Fachner (2016) lists the most common features of music performed in trance and possession rituals, including, but not limited to: focused use of *accelerando* and *crescendo*, extreme constancy and monotony, long duration, simple forms with minimal variations and many repetitions, slow glissandi in a narrow tonal range, a constant timbre, low, pulsating structures and sharp, high pitched modulations, as well as slow and constantly increasing and decreasing amplitude curves. Several of these features are present throughout my compositions which encompass intense rhythmic patterns, dramatic changes in volume and combinations of extremely low and high frequencies. In the composition analysis chapters I provide specific examples of how and where musical elements from trance rituals are included in my music.

The compositions are developed through sequences of structurally autonomous sections varying from full-range blocks of sound to nearly inaudible hisses and rumbles. The shifts from one section to another are gradual, where one section slowly replaces another, or abrupt, where a sudden and unexpected cut radically changes the direction and atmosphere of the piece. These decisive transitions, explosive or gradual, are “carefully engineered” and form a “developing continuity” (Hill 2000: 61, 140) which was influenced by Tarkovsky’s methods of film editing. Tarkovsky argued that editing brings together shots which are already filled with time and organises the “living structure inherent in the film” (1989: 114). In a similar manner, field recordings do not only capture sound but also contain time, a “varying rhythmic pressure” (Tarkovsky 1989: 114) that informed the tempo of audio editing.

The length and musical properties of the environmental recordings determined, to a certain degree, the duration of the sections, resulting in arguably long compositions, for electroacoustic music standards, varying from 30 to 50 minutes. The compositions might appear static or repetitive, possibly generating a sense of non-action, however, the purpose is to emphasise the nature of passing time, the significance of ephemeral moments, and the subjective meanings that can emerge out of them. This compositional strategy reflects the ritualistic deceleration of the hasty tempo of everyday life and it slowly accumulates sonic tensions that resist what anthropologist and writer Thomas Hylland Eriksen calls the “tyranny of the moment” (2001: 3), the overwhelming

hurriedness that makes it difficult to live in the present and value a “here and now” experience.

The studio work outcomes, that took the form of fixed media compositions, were performed live with the aim to reach new levels of tension and gain additional meanings through audience engagement and participation and in relation to the performance spaces. I consider the performances the main outcome of the research as they manifested the concepts about rituals in electroacoustic music and were accessible to audiences who contributed to the works by generating social value and aesthetical meaning. The pivotal importance of performing and listening is discussed in the following chapter, in close relation to the concept of Acousmatic Musicking. Applications of Acousmatic Musicking, as a method of engagement with electroacoustic music, are analysed further in the composition analysis chapters.

2.5 Dionysus and Apollo

With the aim to secure its usefulness in the field of electroacoustic music and reach a necessary degree of consistency and coherency, this research utilized self-reflexivity, theoretical examination, triangulation and fieldwork as methodological strategies that resulted in desired research outcomes. In post-positivist research, validity is also justified by continuous investigation on the subject and not by concluding to a universal theory in a scientific manner (Green and Stinson 1999). By reflecting on the ontological standpoint of multiple truths constantly evolving in a dynamic process, I continue to engage in ongoing exploration that insists on and sustains persistent questioning and interpretation of electroacoustic music practice.

Experiential knowledge can only be gained by establishing relations with others, colleagues or people met in the field, and, moreover, there is always a personal approach on these relations (Titon 1997). In this spirit, the presentation of the outcomes of the research in numerous public events, my involvement in collaborative projects, my participation in conferences and other types of open discussions, together with ethnographic fieldwork, functioned as “multiple pathways of involvement” (Ingold 2011: 70) that secured critical and creative feedback and became a significant driving force and goal simultaneously.

Since classification, description and explanation appear to fail in providing a complete understanding of music as culture, it is necessary to discover and use new theories, methodologies and epistemologies (Cooley 1997: 11). Accordingly, this research used the methods of conducting field and studio work and writing field notes, not as a simple documentation process but as an experience that triggered new ideas, generated reactions and thus affected both the research and the field of study (Barz 1997: 49). Furthermore, the progress of this research depended strongly on self-reflexivity, a powerful tool in qualitative research (Green and Stinson 1999).

The study of electroacoustic music as a form of social expression not only required active participation, a musicological framework and compositional strategies but also an analytical investigation from alternative perspectives. For this purpose, the research explored rituals and social gathering through anthropological, ethnomusicological and theological theories. I examined the writings of distinguished anthropologists such as Clifford Geertz and Tim Ingold whose publications in the field of cultural anthropology demonstrate a deep interest in social relations, rituals, art and the ways of being in the world (Geertz 1993; Ingold 2011). Ground-breaking books such as *Music and Trance: A theory of the relations between music and possession* (1985) by acclaimed ethnomusicologist Gilbert Rouget and *The Sacred and the profane: The nature of religion* (1957) by historian of religion Mircea Eliade, provided additional contextual background and widened the field of study of ritualistic performances and spirituality. Additionally, thoughts of classic philosophers such as Nietzsche and Wittgenstein and writers like Tolstoy added to the discussion about music and its relation to the divine and the sacred.

The validity of the research is mainly ensured with the creation of desired results, and particularly electroacoustic compositions and performances. The research outcomes include four lengthy compositions with a total duration of approximately two-and-a-half hours. Three of these works are published, in online and physical formats, and have received positive reviews. The performances took place in diverse spaces, from galleries to underground clubs and from university auditoriums to churches. By examining the works in varied socio-aesthetic conditions, the purpose was to understand if, where, and in what ways electroacoustic music creates the strongest connection with its audiences.

Despite the general acceptance of the post-positivist research methods within an academic environment, issues of subjectivity in critical analysis are still raised and experiential knowledge is subject to criticism (Haseman 2007). There is always a difficulty in clearly discussing and analysing the immediate experience of performing and listening to a musical work. However, being a participant-observer of electroacoustic music practice was beneficial as it allowed me to view the subject of study from different angles. Following an Anthroposophical approach, I could engage in introspection and bypass the object/subject dichotomy, thus engaging critically and deepening the understanding of my experiences.

Nevertheless, the attempt to describe the ineffable impact of art, to translate the experience into words remains a struggle (Geertz 1993: 94). The translation is even more difficult in music as sound is rooted in the deepest levels of human consciousness, thus making musical meaning unspeakable and unexplainable (Reznikoff 2005). Artistic research within a scientific framework (hypothesis, background, methodology, outcomes) can be challenging and lead to innovative results (Borgdoff 2008), however it might appear unclear and unjustified as the argument of perceiving the artwork as knowledge can still be debatable. As this study aims to access new territories of qualitative research it was essential to balance between established standards and pioneering ideas, with the purpose of meeting the required credibility. The anthropological framework encouraged the “empirical investigation of difference and the unfamiliar” whereas the study of ritual provided “a larger understanding of human action” (Kapferer 2004). Nevertheless, some of the research questions will, or even must, remain inexplicable. The desired impact of the research outcomes is not quantifiable and probably not even clearly defined, not only because it is impossible to do so but more because of a conscious decision based on the belief that “works of art, unlike those of science, have no practical goals in any material sense” (Tarkovsky 1989: 40). Music, therefore, can, or perhaps should, aim at what Tim Ingold describes as astonishment, the result of a sense of wonder and openness to the world (2011: 74).

The research carries a strong religious and spiritual undertone which by no means signifies a “rejection of contemporary thought” (Dowens 2009: 43). My engagement with subjects of spirituality and transcendence necessitated sceptical thinking and a combination of intuition and instinct with systematic and methodical work. Music is a physical and emotional process, rooted to the Dionysian body and shaped and organised

by Apollonian techniques (Storr 1992: 166). Thus, I staged a series of “Dionysian mystery rites with Apollonian precision” (Davis 1998: 19), where I used sophisticated means to aim at a primitive effect, reflecting the spirit of Stravinsky’s *Rite of Spring* (Hill 2000: 142). In this sense, the compositions of the portfolio and the performances of the works are not so much a product of intellectual culture but aim at generating a cathartic power that opens up expanded realms of reality and leads to mystical states of consciousness. This research proposes Acousmatic Musicking as means towards generating this power through electroacoustic music practice and acousmatic listening.

Chapter 3: Acousmatic Musicking

3.1 Introduction

In electroacoustic composition, the most widespread outcome of studio work is an attentively crafted digital audio file. Can this file be considered as the sonic realization of the composition? Is musical meaning contained in the codified data, independent of performative actions and social context? In Christopher Small's concept of musicking, the main function of a musical work is to enable action, to trigger a performance. Socio-aesthetic meaning in music lays in what people do, how they participate in musical action; the created object is less important (Small 1998: 8, 108). In a similar manner, theologian Bruce Ellis Benson notes that 19th century philosopher Wilhelm von Humboldt approached language not as "Ergon" (ἔργο), the Greek word for work or product, but as "Energieia" (ἐνέργεια), the word for energy (Humboldt on Benson 2003: 125). By applying this idea to music, Benson argues that the work only triggers the musical experience; it is not the experience itself. Music, therefore, is an ongoing process constantly in flux, serving a utilitarian function as part of a cultural world (Benson 2003).

With the purpose of applying musicking to electroacoustic music practice and approach it as Energieia, I suggest the term Acousmatic Musicking to describe composer and audience participation in the loudspeakers-only setting of acousmatic music performances. Acousmatic Musicking is not a theory about electroacoustic music but a practice, a method of engagement. It is the experience of participating in an electroacoustic music performance, the interaction with the audio file - the created object - that manifests the composition.

How is Acousmatic Musicking conceptualised and performed? What are the ways of engaging and interacting with an audio file? What is the purpose and effect of attending an acousmatic performance? In the following sections I contextualize Acousmatic Musicking by describing the acousmatic setting and analysing the socio-aesthetic value of listening in the ritual of electroacoustic music.

3.2 Resound in all directions

The listening experience is influenced, if not dictated, by the concert setting. The typical setting of an electroacoustic concert includes an immersive sound system with the mixing desk in the middle of the space and the audience sitting around it. The concept of the traditional concert stage is negated. The performer, who usually is also the composer of the work, is sitting among the audience and there is no physical separation between the two. Furthermore, any technical skills are not visually exposed to connect the production or manipulation of sound with specific gestures made by the performer. The lights are dimmed and often listeners close their eyes as well; the attention is solely focused on sound and its immaterial properties.

The separation of the auditory effect from its source in the acousmatic setting provides sound with a transcendental power that manifests a spiritual world separate from the mundane (Kane 2013: 10). This is also evident from a historic and religious perspective as God was originally recognized as a “vibration of cosmic sound” and until the Renaissance was never portrayed or visualized (Schafer 1973: 7-8). The spiritual properties of sound are affecting music which is considered of divine nature and whether in a Palaeolithic cave, a cathedral church or a concert hall, it is performed “in high praise of the Invisible” (Reznikoff 2005).

With its apparent focus on sound, the acousmatic is the most emphatic setting to experience the relationship with the invisible and elevate it to the highest level of perception. This relationship is intensified by the regular use of immersive sound systems that may also create a strong relationship between sound and the physical and architectonic properties of the performance space. With the technique of live fader diffusion, or the performance of multi-channel compositions, it is possible to make the location of the sound unclear and thus transform it into mysterious and omnipresent by giving it “a supernatural effect of voices coming from many different angles” (Hale 2007: 69). Throughout the millennia, similar techniques have been used in various means and cultural settings. Waldemar Bogoras, a Russian writer who was exiled in Siberia in the late 19th century, spent time with the indigenous Chukchi people and observed the skills of shamans in deploying sound to summon spirits and in creating highly intensive sonic atmospheres. Performing in a small room, the shaman, through drumming and singing, made “the narrow walls resound in all directions”, while the

listeners started “to lose the power to locate the source of the sounds” that seemed “to shift from corner to corner, or even to move about without having any definite place at all”. Bogoras’s descriptions also give a sense of space and volume as he wrote about voices “coming from afar” that gradually “increase in volume [...] and dying away in the remote distance”, while other voices “pass through the room and seem to go underground where they are heard as if from the depths of the earth” (Bogoras on Hendy 2013: 39).

Although written more than a century ago, this description can fit an acousmatic music performance where the sounds travel in the performance space, from one loudspeaker to another, in various speeds and trajectories, while the use of a subwoofer gives an impression of grounding the ethereal auditory material to earth. Nevertheless, the acousmatic music performer is not a shaman, in the sense that an acousmatic performance is situated in a different cultural framework and serves different aesthetic expectations. However, a resemblance can be acknowledged and a link can be established, considering several common features between shamanic performances and acousmatic music. Like in electroacoustic music practice, the sounds produced by the Chukchi shaman are not random or irregular but carefully calculated and in close relation to the performance space. These sounds create a sense of meaning and order in the Chukchi people, based on their cultural expectations and system of belief (Hendy 2013: 39-42). Similarly, within the culture of acousmatic music, the socio-aesthetic expectations and purposes are fulfilled in accordance to the performance settings and use of electroacoustic sounds that might sound like meaningless noise to anyone not relating with or involved in the community.

The practice of Acousmatic Musicking suggests that the acousmatic setting, despite being strongly dependant on audio technology, creates a condition for communication with the divine. Although products of the materiality of loudspeakers and mixing desks, electroacoustic sounds fill performance spaces with a ghostly quality. As part of human culture, Acousmatic Musicking is a ritualistic action performed by the community of electroacoustic music. It has particular settings that derive from a common understanding and language and is encouraging the establishment of ideal relationships between sounds, performance spaces, audience members, the physical world and the otherworldly.

3.3 Profound Listening

The acousmatic setting is not a sufficient precondition for a successful concert. What is furthermore required for transforming the concert into a significant and meaningful experience, and apparent in the acousmatic setting, is active participation through listening. It is not the setting itself but the audience's attention and focus that ultimately manifests the work. The importance of audience engagement in musical performance is evident in the history of Western music. In Medieval, Renaissance and Baroque music the concept of an autonomous work, separated from performance simply did not exist (Benson 2003: 22). The audience, through listening, becomes an additional, perhaps equally important performer and, as composer of experimental music Alvin Lucier claimed: "Careful listening is more important than making sounds happen" (1995).

Since the inception of electroacoustic music, the act of listening has been contextualized in various manners. Together with his experiments in *Musique Concrète*, Pierre Schaeffer developed theories about the experience of listening to sound for its own sake that he called "Reduced Listening". In the late 1980s, composer Pauline Oliveros coined the term "Deep Listening" as a practice of attentive listening that raises awareness of the sonic environment through experimentation, improvisation and collaboration (Deep Listening Institute n.d.). Listening is also important in non-musical practices such as meditation. An example is "Reflective Listening" that refers to spiritual introspection, aiming towards self-awareness and the discovery of the voice of the soul (Corley Schnapp 2013).

Acousmatic Musicking employs "profound listening", a term suggested by composer and sound artist Francisco López, who embraces the Schaefferean tradition but considers the word "reduced" to connote simplification and thus replaces it with "profound". The aim of profound listening is to highlight the astonishing richness of the inner nature of sound and "shift the focus of attention and understanding from representation to being" (López 2004). In this spirit, the value of Acousmatic Musicking is discovered not in what is heard, or in how sound is generated and organized, but in how audiences listen, how they relate to the sounds. This fundamental aspect is regularly ignored in the discourse of musical ability (Blacking 1977: 10) although listening is as real as making sound; the two are inseparable (Takemitsu 1995: 84).

Active listening blurs the distinction between composer and audiences. The listeners are interpreters of the work, and not passive receivers or consumers (Landy 2007: 38), they become “composer listeners” (Roden 2005), participants in a ritual. The sense of participation is intensified in profound and de-visualized listening as it places the audiences in a “being-in-sound” condition while, in contrast, visualization divides, analyses and places objects in a distance, thus sustaining the Cartesian object/subject dichotomy. The eye explores surfaces and is directed towards the mind whereas the ear “is receptive and intuitive; it belongs to the spirit and perceives the whole as one” (Cobussen 2008: 139). According to Jonathan Harvey, the shifting of duality in active listening can lead to transcendental and ecstatic experiences that, although occasional and fleeting, are central to the spiritual capacity of music (Dowens 2009: 31).

Acousmatic Musicking is an aesthetic experience, where aesthetic is defined by the original Greek word *aisthesis* (αἴσθησις), meaning sense. Aesthetics are also related to the sensuous in Tantric philosophy and “Rasa”, the theory of aesthetic emotions developed in medieval India. Rasa, triggered by music and perceived without preconceptions, aims at dissolving the Self-Other boundaries and leads to “aesthetic rupture”, to primary emotions of high arousal, which is an essential source of meaning in ritual (Becker 2004: 57-58). In Acousmatic Musicking the loss of self-awareness and the arousal of emotions is not the goal but a proof that the ritual is successful. The focus is on the path and the journey towards a transcendence, culturally situated within the communal action of attending an electroacoustic concert but individually framed and experienced, based on personal memories and responses. Furthermore, the appreciation of sound-as-such can be liberating but perhaps also oppressive as it may be perceived as a pre-fixed rule and obligation imposed on the listeners. Therefore, for Acousmatic Musicking, immersion into sound, being “music-in-the-world”, is a journey that involves losing but also eventually returning to a transformed self-awareness (Titon 1997) containing personal memories, thoughts and emotions, with the ultimate purpose of becoming an experience of celebration.

Acousmatic Musicking is a process of personal development during a social action, a ritual performed by communities of interpretation of electroacoustic music. The return to a transformed self with amplified self-awareness means, in addition, to have extended awareness about other humans and a closer relation with and understanding of the world. It is a form of holistic, embodied and empirical knowledge.

3.4 Social Action and Participation

Acousmatic Musicking aims, perhaps paradoxically, at using recorded sound, the fixed media composition, to reunite musical performance with the social event by refocusing on communal instead of private listening. Until the dissemination of the gramophone record, musical event and performance were inseparable; to listen to music necessitated attending an event. The record enabled people to arrange their individual rituals, setting thus new contexts and standards to performance and listening (Small 1998: 213). In Acousmatic Musicking, the ritualistic gathering of a community is the platform to develop a musical language and style that cannot be finalized in the isolation of a studio and then reproduced in a concert, in a representational manner. The values of Acousmatic Musicking are not preconceived and predetermined but are revealed during a performance, where the work emerges through its use (Landy 2007: 38). The concert, therefore, becomes a tool for intellectual and emotional exploration and not simply a platform to present works. Liberated from dogmatic frameworks, listening is “not intended for the benefit of rationality, understanding, and logic” (Cobussen 2008: 130), and therefore transforms the concert from merely a subject for critical analysis into a spiritual experience, a ritual.

The social and technical settings of an acousmatic concert suggest that all participants are partly responsible for its success, not only as composers, listeners, curators, technicians or anything else but, moreover, as members of a musical community. In May 2015, I played a concert in Athens, at Idrima 2.14, a venue that usually hosts punk and hardcore bands. Their online manifesto had a very intriguing phrase: “We believe that a concert is about the band, the team that organizes it, but also about the people attending the event. We all together make the show happen” (Idrima 2.14 2015). This DIY idea of participation highlights that “all musicking is ultimately a political act” (Small 1998: 213) and emphasises the importance of responsibility. When composer and audiences share the same physical space, as it frequently happens in acousmatic performances, beyond the practical and technical purposes it reveals their equally important contribution to the ritual; audiences are also performers of the music. The acousmatic setting establishes a reciprocal relationship and not a one-way communication, as is the case in concerts where traditional staging clearly divides performers from audiences. In this condition, the latter’s silence has been perceived as

unnatural, imposing a passivity where audiences have no role in the concert other than to receive the work, without interacting with it (Small 1998: 44). Nevertheless, being silent while listening can shift music from merely a background entertainment to a deeply personal experience (Hendy 2014: 235), a source for truth, inaccessible to any other form of expression (Begbie 2013: 108).

Electroacoustic music appears to be marginalized (Landy 2011) and, as discussed in Chapter 1, the number of audience members in acousmatic concerts is small. Nevertheless, the aim of Acousmatic Musicking is to intensify the experience and impact of listening to the existing members of the community. Quality is prioritized over quantity as it is not how many people attend a concert, a statistical factor, that will make it valuable but how actively and profoundly they relate and contribute to what is happening. As Jacques Attali wrote, “now we must learn to judge a society more by its sounds, by its art, and by its festivals, than by its statistics” (1985: 3). Acousmatic Musicking creates and explores festivals of sound, aiming at making electroacoustic music more accessible and relatable. If the quality of this experience improves then it can be a decisive step towards the end of electroacoustic music’s marginalization.

Part 2: Analysis of electroacoustic compositions

Chapter 4: Everything emanating from the Sun - Field recording composition as hierophany

4.1 Introduction

“Everything emanating from the Sun which is Divine Love is called spiritual; everything emanating from the sun which is fire is natural. Owing to its origin that which is spiritual contains life within it, but that which is natural has no life in it” (Swedenborg 2001: 1)

In this excerpt, Swedish philosopher, scientist and mystic Emanuel Swedenborg (1688-1772) describes the relation between the natural and the spiritual and claims that life exists only when the spiritual penetrates the physical world. Inspired by Swedenborg's thoughts, my electroacoustic composition *Everything emanating from the Sun* investigates this relation through the act of recording sounds of the environment and using them as sonic material for the studio work. The aim is to explore the connection between field recording composition and spirituality and how it can affect acousmatic music performances and audience engagement.

Everything emanating from the Sun is based on environmental sounds recorded during an artist residency that took place in Estonia in April 2015 and was completed in London four months later. Earlier shorter versions of the composition were performed in spring of 2015 in two concerts, one in Tartu, Estonia and a second in Goldsmiths University in London. These performances raised a series of additional questions considering the duration of composition, the influence of a live event's framework to the listening experience and the relation between sonic material and performance spaces.

4.2 Music and the environment

In 1942 Igor Stravinsky talked about the pleasure of listening to the sounds of nature, however he emphasized that it would be a mistake to call this music. Natural sounds, as he argued, suggest music, are promises of music, but cannot become music until they are put into order and organized as a “conscious human act” (1947: 23). Bringing Stravinsky's claims into the current dialogue on field recording composition, what

conscious human act can transform environmental sounds into music? What strategies can be utilized in organizing a musical order, as he insisted on?

The use of field recordings as sonic material is widespread in electroacoustic composition and has increased in recent years due to the availability of affordable and portable digital recorders. This activity was established in the late 1940s by Pierre Schaeffer with his early experiments in *Musique Concrète*, nonetheless, the relation between music and sounds of the environment is rooted further back in time. As improvising musician Edwin Prévost suggests, the first ever concert took place when primitive humans reached a higher level of primal consciousness by intensely listening to their natural environment. Since then, every concert is, or at least should be, an attempt to recreate this sublime experience (Prévost 2011: 5). Up until current times the relation between listening, music and nature remains ongoing and undisturbed. To focus on the history of Western composition, Vivaldi's *Four Seasons*, Beethoven's *6th Symphony – Pastoral*, and Debussy's *La Mer* are only a few examples of works that demonstrate the influence of nature and relation to the environment. However, while these works represent nature in a romanticized way as calm and tamed, with Stravinsky's *Rite of Spring* nature returns to the sphere of the sacred and mysterious by re-establishing the feeling of awe and magic, as it was sensed in primitive epochs. According to Christopher Small (1977: 109), Stravinsky reminded the Western musical world that nature is enigmatic and even frightening and our connection to it can shift to the realm of the metaphysical. Nature is an active and imaginative force and music a tool to establish and preserve a deep relationship with it, both gentle and harsh (Takemitsu 1995: 3, 86).

Listening to the sounds of nature is a committed and passionate creative act with a deep impact on music-making and composing (López 2013). While being in the field, particularly in rural locations of southeast Estonia, and engaging in the act of listening and recording, I was also exploring the relationships between myself and fellow practitioners, our community and the environment, sound and the natural world.

4.3 The residency in Mooste

From April 1st to 14th, 2015 I was artist-in-residency in MoKS, an artist-run project space located in Mooste, a small village in southeast Estonia. I was invited to participate in “Active Crossover: Mooste”, a cross-cultural collaborative residency curated by sound artist and composer Simon Whetham. A total of thirteen international artists of various backgrounds and disciplines participated in the residency over a period of two months, forming various combinations in dependence of their arrival and departure dates. Simon Whetham and John Grzinich, sound artist, film maker and project coordinator of MoKS, were the only two people to stay in Mooste throughout the entire duration of the project. Other participants during my stay were composer and percussionist Richard Eigner from Austria, Korean choreographer and dancer Jin Young Park and Estonian accordionist and folk musician Tuulikki Bartosik.

The primary aim of this collaborative experience was the creation of a shared archive, with material compiled from the various activities that would taking place during the residency. The activities included field recording sessions, indoor and outdoor improvisations, screenings, open discussions, public events and workshops. The archive’s material is recorded sounds, still and moving images, found objects, texts, documentation of performances and conversations and any other type of data generated and documented by the participating artists. The purpose was to use the archive as a tool for communication with an emphasis on the dynamic of the processes and ideas that were produced and shared during its making. An additional subject of investigation was the ways the artists were linking their individual work to MoKS project space and the surrounding locations, together with the ongoing responses that were triggered by these explorations. The main outcome of Active Crossover: Mooste is *Corollaries*, a series released online by the Portuguese label Crónica compiling compositions based on sonic material from the archive. The final 31-minute studio version of *Everything emanating from the Sun* premiered the series on January 2016 (Sakellariou 2016).

The Active Crossover: Mooste residency was a period of intense practical and theoretical exploration of my research methods and subjects. Firstly, I had the opportunity to observe the methods used by fellow artists in their practice and also collaborate with them, thus getting diverse insights on field recording and sonic performance. Additionally, I participated in formal and informal group discussions

where I gathered information regarding the creation and perception of sonic artworks and documented what ethical, practical and aesthetic questions are negotiated by active practitioners. These discussions also functioned as a platform to externalize and articulate on my research methods and artistic concepts and suggest alternative approaches on electroacoustic music composition and performance. Further activities included a performance at an open event in the city of Tartu, followed by a Q&A session with the audience, a workshop on sound awareness, in collaboration with Whetham, at the Agricultural School of R  pina and a visit to Mooste Folk Music School for a discussion about traditional music in Estonia with its director Krista Sildoja. Most importantly, however, during my stay in Estonia I made a series of environmental recordings and composition sketches which resulted in *Everything emanating from the Sun*, the first creative outcome of my research.

Active Crossover: Mooste triggered processes of understanding, learning, acting and practicing. Alongside the creative and participatory methods, the residency's activities widened the theoretical investigation of my research through comparing various creative strategies and analysing field work, composition and performance practices. The key areas of interest were the contextualization of field recording techniques and aesthetic considerations, the sonic exploration of spaces and its connection to studio composition, the use of discussion as an artistic tool, individuality and social engagement, audience participation and the ways of accessing artistic works.

4.4 Field recording in Estonia

The field recording sessions in Mooste and its surrounding areas had a collaborative spirit which, nonetheless, encouraged personal explorations. During the sessions, the participants would share ideas, demonstrate recording techniques and exchange equipment but it was also a standard strategy to wander and spend time away from the rest of the group in search of individual discoveries. The locations were primarily suggested by Grzinich, who is very familiar with the area, but chosen in relation to common interests and curiosity. The main criteria to visit a location were its acoustic properties and sonic textures that could be explored and recorded. In some occasions, however, a captivating visual element, for example the landscape of a forest, a swamp

or a lake, would influence the decision. The recording locations offered a wide range and variety of sounds, generated from various sources and materials such as weather phenomena, birds, trees, plants, rivers as well as human made constructions; for instance, water towers, wire fences, antennas and abandoned buildings.

Due to their collaborative nature, the recording sessions were more open-ended and unpredictable in comparison to my previous solitary field recording experiences. With the regular use of a pair of omni-directional microphones, my principal field recording method focuses on the open space and stimulates attentive listening as an immersive and meditative tool for sensing and valuing the environment's energy and sonic depth. Nevertheless, observing and discussing other recordist's techniques, on both theoretical and, most importantly, practical levels, resulted in a renegotiation and expansion of the methods of recording environmental sounds. Firstly, Grzinich demonstrated how to build wind harps, a skill that was utilized two months later in a residency in Greece that will be discussed in detail in the following chapter. Furthermore, I improved my technique of recording with contact microphones, following advice and suggestions by Grzinich and Whetham who are experienced recordists. With the use of contact microphones, I recorded the vibrations of wire fences that were surrounding the nearby fields of Mooste (Figure 1, Audio Example 1).

Some materials have been removed due to 3rd party copyright.
The unabridged version can be viewed in Lancaster Library -
Coventry University.

Figure 1. Recording with contact microphones in the fields of Mooste, Estonia.

Additional recordings were made at the ruins of an abandoned building which functioned as a collective farm during Soviet times (Figure 2). The group arrived there just after heavy rain had stopped and the water gathered on the roof was leaking through the ceiling. Depending on the amount of water and the material it would drop on (cement, glass, metal or plastic), the sonic identity of each raindrop would differ and their combination created a dense soundscape (Audio Example 2). Acute listening to the polyphony of the dripping sounds reflected on the claim of R. Murray Schafer, founder of the Acoustic Ecology discipline, that “no two raindrops sound alike” (1973: 6). This listening experience intensified and improved my awareness and sensitivity about sonic micro-details, in relation to material and environment.

Some materials have been removed due to 3rd party copyright.
The unabridged version can be viewed in Lancaster Library -
Coventry University.

Figure 2. The abandoned collective farm near Mooste, Estonia.

The rain created a specific and transitory sonic identity of the abandoned building and it was fortunate we visited it on that day as this choice allowed us to record the sounds of dripping water. On a second visit, a few days later, no rain preceded and consequently the building was quieter. In response to this condition, the group’s spontaneous decision was to trigger sonic events ourselves with performative actions and experiment with materials and movement. I walked on pieces of broken plaster and glass and dragged found plastic boards and metallic plates on the floor thus transforming the building and its contents into sound-producing objects. Although previously known to me, this method of interactivity and performance was never utilized until I followed my fellow

recordists' suggestions. Consequently, I learned to respond to a location in an alternative manner and, moreover, consciously acknowledge my physical presence in it. This method underlined that field recording is not solely a documentation of the sounds of the environment but an invitation for engagement and interaction with it, on multiple levels.

Another human-made construction that was recorded was an old rusty water tower, with a height of more than 10 meters (Figure 3). Again, the weather strongly affected the outcome, similarly to the initial recordings in the abandoned farm. Small pieces of hail were hitting the tower and transforming it to an enormous percussive instrument, resembling at times the sound of an African thumb piano, known also as kalimba. Simultaneously, strong wind was vibrating the tower, creating a complex set of resonating sounds, a mixture of short tones, clings, soft bangs and sustained low rumbles (Audio Example 3). These sounds were inaudible when standing next to the construction; they were revealed only when microphones were placed inside the hollow tower through a hatch door at the bottom (Figure 4). This setting made it possible to record a secret sonic cosmos that emerged unexpectedly as a result of curiosity and coincidence.

Some materials have been removed due to 3rd party copyright.
The unabridged version can be viewed in Lancaster Library -
Coventry University.

Figure 3. Water tower at Mooste, Estonia

Field recording is an act of “questioning the world by listening to it” (Feld on Carlyle 2013) and ultimately becomes an alchemical practice, a transformation of perception of both recordist and environment. Rural southeast Estonia was not simply a geographically defined location but, more importantly, a place of inquiry, experimentation and wonder. The recorded sites had what renowned recordist Chris Watson has described as haunting quality and encompassed a whole range of music, both dynamic and quiet, eerie and ethereal (Watson on Viane 2007). To discover these musical qualities involves submerging into numerous streams of sounds that create an unexpected and unexplored world (Takemitsu 1996: 8), filled with vibrant and impulsive events.

Some materials have been removed due to 3rd party copyright. The unabridged version can be viewed in Lancaster Library - Coventry University.

Figure 4. The hatch door at the bottom of the water tower

4.5 From field to studio

How is the identity of the recorded sounds affected by the transition from field to the studio? How are their meanings and qualities transformed during the composition process? Electronic music composer and sound designer Kim Cascone argues that the recording of a natural soundscape (e.g. a forest) cannot capture the complete experience of listening on location, regardless of its technical quality. When the recordist returns to

the studio, he or she listens to fragmented and codified data, reproduced through the loudspeakers, but misses what Cascone calls “the soul of the forest” (2014). He describes the playback of the data as a reanimation of the recorded material, as the way in which the practice of field recording contributes, perhaps unknowingly, to the theme of resurrection, the overcoming of death, that has been described in numerous mythical stories throughout history and around the globe. Indeed, recording promises immortality and that was exactly what originally excited people when the phonograph, the first recording device, was invented by Thomas Edison in 1877 (Hendy 2013: 256-257).

Consequently, working with recorded environmental sounds is perceived as mystical revelation, signifying a transition from one world and being reborn into another, “like a child with a new and independent view on things” (Xenakis 1992: xi). This process triggers an original experience aiming not at an objectified and realistic representation of places that exist somewhere else and events that happened in the past, but at the construction of a here-and-now hyper-reality, expanding between the real and the elusive. To reanimate the soul of the forest and recreate the primal listening experience leading to self-awareness requires the Swedenborgian penetration of the spirit and with *Everything emanating from the Sun*, this research proposes field recording and electroacoustic music-making as the tool to spiritualize nature.

4.6 From studio to performance space

On April 8th, 2015, I participated in “MoKS Meetings”, a series of regular events where the invited artists of MoKS are introduced to the public through discussions, presentations of works-in-progress and other formats of audience engagement. The evening took place in Tartu, a city located approximately 45 kilometres north of Mooste. The venue was Y Gallerii, previously a church with vibrant acoustics that was converted into a gallery. The event included two performances (one from Whetham in collaboration with Jin Young Park and one from myself), a CD presentation by Bartosik and a Q&A session moderated by Grzinich. The entire space was already occupied by an x-shaped artwork made of fabric and for my performance a quadraphonic sound system was set up, with the front loudspeakers being placed behind the artwork (Figures 5 and 6). The Q&A session focused on the diversity of the term “sound art” and the

ways it informs creative practices, from choreography and improvisation to technical and performative modes of presenting composed works. The aim was to encourage a dialogue between the MoKS residents and investigate the relations between artists, artworks, performance spaces and audiences. Active Crossover: Mooste, as most residency projects at MoKS, was process-based, focusing on social engagement and interaction and not fixated on the production of outcomes. Similarly, MoKS Meetings had an informal spirit, emphasizing on the openness and accessibility of a work-in-progress and aiming at generating discourse rather than presenting completed artworks.

Some materials have been removed due to 3rd party copyright. The unabridged version can be viewed in Lancaster Library - Coventry University.

Figure 5. Setting up at Y Gallerii in Tartu, Estonia

Some materials have been removed due to 3rd party copyright. The unabridged version can be viewed in Lancaster Library - Coventry University.

Figure 6. Loudspeaker at Y Gallerii in Tartu, Estonia

Presenting an electroacoustic composition in this event was a challenge to negotiate the role and identity of the musical work and interrogate how an acousmatic performance would be perceived by the audience. The composition was a study on the environmental sounds recorded in Mooste and an initial negotiation of Cascone's ideas about reanimation. With only a few days available for studio work, I attempted to encapsulate the diverse textural variety of the durational field recordings and composed a piece with several sections, compressed into 17 minutes. The piece consisted of processed and unprocessed sounds of nature that were arranged and juxtaposed in a form of audio montage. As discussed in the previous chapter, in electroacoustic music the completion of the studio work is not the end of the creative process but merely a step towards the composition's manifestation. The rendered audio file had fixed duration and structure and maintained, to a certain level, the textural character of the original sound sources. However, the transition from studio to performance space transmuted its identity that was primary affected by the social settings of MoKS Meetings, in close relation to the performance space.

Current research on music focuses on "the potential for group aggregating experience, harmonious or divisive" (Finnegan 2003). As part of a multi-disciplinary event, and connecting physically and conceptually to other artworks, the piece I presented in Tartu aimed at triggering a communal experience with its value being determined by its social impact instead of technical complexity (Blacking 1977: 34-35). The piece became a reason to act, a stimulation to perform, by introducing Acousmatic Musicking as an alternative artistic process, manifested in electroacoustic sound and immersive listening. The audience appeared to respond positively, by listening in silence and with focus, and engaged actively to the Q&A session that followed the performance. It is also notable that setting up an artistic event in a converted church validated Nietzsche's remark about the function of galleries. My performance at Y Gallerii was a reminder of the, possibly neglected, original purpose of the building; to encounter the divine.

Shortly after returning from Estonia, I performed a second version of the piece, with the temporary title *Mooste*, at the opening of "Sound | Place" exhibition in Goldsmiths University in London. The performance was an opportunity for further exploration on field recording composition and allowed a comparison between different performance spaces and contexts. Sound | Place featured installations, films, sound sculptures, music, performances and textual presentations and investigated the notion of place, as a

creative platform for interdisciplinary artistic practice focusing on sound. The exhibition was hosted at St James Hatcham gallery space which was selected for its unique architectural and acoustic properties. Similar to Y Gallerii in Tartu, the building underwent a structural and conceptual shift, from church into gallery; a space originally built for spiritual purposes is now functioning as an artistic hub. Sonic performances took place on May 5th, 2015 in Sonics Immersive Media Lab (SIML), a high-tech multi-media facility constructed in the premises of St. James Hatcham, which functioned as a “Listening Box” for the presentation of multichannel audio works (Figure 7).

Some materials have been removed due to 3rd party copyright. The unabridged version can be viewed in Lancaster Library - Coventry University.

Figure 7. Sonics Immersive Media Lab (SIML), St James Hatcham, Goldsmiths University, London

For this performance, I reworked the original sketches and sonic material from Mooste and the revised version had similar duration, structure and atmosphere. However, the context of Sound | Place and the conditions of an exhibition opening led to different results in comparison to MoKS Meetings. The use of varied and diverse sonic material and the introduction of a fast tempo with frequent transitions from one section to another resulted in the piece being hasty and functioning as a sonic postcard, an exhibition of environmental recordings from Estonia. In addition, SIML’s sound system was dysfunctional causing an uncontrollable rumble in the low-mid frequencies during the loud part of the piece. In this particular instance, instead of supporting the work, advanced audio technology made the relation between sonic material and performance space problematic.

The event also featured the performance of *Rain Choir: The St. James Variation* (2015) by sound artist, writer and lecturer Sebastiane Hegarty. Contrary to *Mooste*, his piece effectively used economy of material and slow development. Hegarty worked with a limited set of water sounds, a narrow dynamic range and basic, yet efficient, cross-fade techniques. Due to its frequency range and low volume, *Rain Choir: The St. James Variation* was the only performance on that evening that was not affected by the problems of the sound system. Additionally, by responding to his water recordings, Hegarty structured the piece with attention on the subtle details of their textural qualities. The skill of the composer was present but did not dominate over the sonic material. The outcome was not a demonstration of a sonic palette and compositional technique but a stimulation of the audience's auditory imagination, unfolding effortlessly in time.

Listening to Hegarty's performance and reflecting on the ones I did in Tartu and London drastically informed the subsequent studio work that resulted in the final and published version of *Everything emanating from the Sun*.

4.7 Return to the studio – Memory, material and tempo

Studio work is a methodical process informed by the qualities and diversity of the sonic material and working on *Everything emanating from the Sun* was additionally informed by the memory of performing with the specific material in different spaces, contexts and technical settings. Moreover, the process of sound manipulation and structure of the composition was influenced by the theoretical framework of my research.

The work begins with a low-frequency drone, generated by adding a low pass filter on the water tower recording (Audio Example 3). There is a dual purpose behind this decision. Firstly, to establish an abstract atmosphere with the aim to encourage the listeners to experience the work outside the referential outline of "sounds from Estonia", submerge in sound-as-such and respond freely to the music. Secondly, the drone creates constant timbre, a common feature in trance and possession music, and by placing it at the beginning I aim to underline the ritualistic character of the composition. Additional features in trance and possession music are minimal variations and repetition which are present from 8'21" to 12'18". The section includes several loops of different lengths

that create constantly shifting polyrhythmic patterns. Rhythm, repetition and looping have a pivotal role in my composition *Shift* and they will be discussed and analysed further in Chapter 6.

After 12'18" I introduce unprocessed environmental recordings and explore how their inner musicality can guide the dynamics and structure of the composition. The section between 19'42" to 23'25", comprises of two sound files, both recorded in a field near Mooste, in different days and weather conditions. One of the files captures the sound of rain falling on a tree's foliage that created a "natural" crescendo and diminuendo, as the rain started softly, got stronger and gradually stopped. I decided to include the entire event as recorded and make it a structural element of the composition. This was a response to Pierre Schaeffer's observation that at some point during studio work sounds speak for themselves (2012: 91). A similar thought was expressed by American composer Morton Feldman who claimed that "I listen to my sounds and do what they tell me, not what I tell them" (2000: 173).

For *Everything emanating from the Sun*, filtering, time-stretching, looping, multi-layering sounds and choosing a slow tempo of transitions between sections were methods used to assemble the composition and simultaneously respond to the musicality of the original environmental recordings and my memory of performing with them. The outcome is inspired by the concept of open interpretation and fluidity of identity that fuelled the field recordings and original performances. Although in fixed to media form, *Everything emanating from the Sun* is not perceived as an autonomous or static object, an artefact related to a specific time and space. Instead it is the means for an original experience, a musical "Energeia", as described by Benson, that will be re-triggered every time someone listens to it.

4.8 Hierophany

Within an anthropological framework, the processes of recording, composing and performing *Everything emanating from the Sun* are part of a continuous circle of discovering, expressing, modifying and deepening myself in relation to other human beings and to the world I exist in. Through these relationships, the work, and the related research, becomes part of and contributes to its mutating cultural and social landscape

(Kisliuk 1997). Furthermore, by engaging with and responding to the activities of natural phenomena – the wind, the rain, the hail – and reanimating them through field recording, my creative methods become a conscious human act in an attempt to transform sounds of nature into music. The focus shifts from the physically perceived and defined natural environment to the galloping imagination that is stimulated by the interactions with it. Moreover, through the penetration of the spirit that gives life to nature, as Swedenborg believed, the aims of the work are becoming “more celestial than territorial” (Ingold 2011: 74). This is apparent in a review of the release commenting that “nature is omnipresent in every corner of the work, rebuilt and redesigned by the hands of man, trying to build a semblance of Divine Creation, in a vain attempt to touch the Big Bang and the first steps in the cosmos” (Torres 2016).

From a religious perspective, the world is never just “natural”. As historian of religion Mircea Eliade argued, a world understood through religious values is a real, living and sacred Cosmos. He introduces the term “hierophany” to describe the manifestation of sacred realities through the worship of the Cosmos’ material elements such as rocks and trees (Eliade 1957: 11-12, 116-117). A divine presence in nature was also experienced by Goethe, as the great German poet would “feel the presence of the Almighty” when hearing “the humming of the little world among the stalks [...], near the countless indescribable forms of the worms and insects” (Goethe in Schaffer 1973: 10). Moreover, anthropologist Tim Ingold adds that “in most animic cosmologies the winds are taken to be alive and to have agentive powers of their own; in many they are important persons that give shape and direction to the world in which people live, just as do the sun, the moon and the stars” (2011: 73). Similarly, as an embedded part of the Cosmos, an inseparable element of life, the sounds of animals, of rain and wind, of metal and plastic being bended and stepped on, are no longer just sounds but they also function as hierophanies. Paradoxically they remain simply the sounds of natural elements and human actions, however, as Eliade explained, for those perceiving them as sacred manifestations, their immediate, quantifiable reality is transformed into a supernatural one (1957: 12).

Considering the experience in Estonia and reflecting on how it influenced the creative methods and performances of *Everything emanating from the Sun*, this research suggests that sound manifests *something else*, an awe-inspiring mystery, a “wholly other” (Eliade 1957: 9). When submerging into the environment of a location,

imagination creates a connection between self-awareness and the living Cosmos, a “magical interface that manifests mutual relations” (Davis 2010: 153-154). The explored field of Mooste was a mystical place for engagement with its elements and for participation in the formation of its identity. In extension, the concert, the sonic performance is in its turn a new physical and emotional field, a new Cosmos to explore and relate to, manifested through the reanimated audio file of the fixed media work. The archaic and animistic manner of experiencing nature, as explained in anthropological and theological terms, informs the musical performance based on sounds of the environment and provides access to empirical and embodied knowledge.

Immersing into natural environments and performance spaces can be compared to a baptism or pilgrimage, it is an act of faith. It is noteworthy that *Everything emanating from the Sun* was performed twice in human-made constructions built for the communication with the divine world. Tarkovsky’s film *Stalker* (1979) depicts its three protagonists entering a forbidden and desolated Zone, each with different aims and motivations. “Stalker”, the guide, acknowledges the presence of God in the multiple layers of natural sounds and drifts away from his companions to spend some moments submerging into the ethereal and micro-detailed soundscape of the Zone (Pua 2016). He then explains to his companions that “to be *in* the Zone is to be *part* of the Zone” (Dyer 2012: 90); it is a reciprocal relationship constantly unfolding while the physical space also transforms into a mental and emotional state. Whether it is the Zone of Mooste, which was entered by a group of artists and recordists, or that of the converted churches, which were entered by members of temporal communities called “audience”, the act of listening is leading the visitors into a journey of faith, exploration and self-discovery.

Chapter 5: In Aulis - Music as a sacrificial act

5.1 Introduction

This chapter discusses the theoretical and creative processes of composing *In Aulis*, an electroacoustic work conceived during a residency in Greece and completed in London in the summer of 2015. The composition employs theoretical investigation, field recording and studio work to interrogate the connection between myth, sacrifice and electroacoustic music practice. The chapter provides research questions about the residency in Greece, analyses the fieldwork conducted to record the sonic material and describes the studio work that took place afterwards. The primary focus will be on the philosophical and aesthetical considerations that were negotiated through the work. By analysing the ritualistic act of sacrifice and comparing it with music making, the aim is to extend the conceptual perspectives of electroacoustic music and propose an alternative framework for engagement and interpretation by establishing a relation to ancient rituals and the use of sound in religious practices.

5.2 The residency in Aulis

In June 2015 I was invited by Implode, an artistic platform dedicated to new forms of sound and visual arts, to participate in “Sonic Topographies”, an artist residency that focused on locations of major importance in Ancient Greek history. During the residency, four invited artists lived and worked for two weeks in culturally and historically significant locations of the Greek island Evia.

The residency was a platform for further research on the spiritual and ritualistic aspects of electroacoustic music practice. I explored the ancient Greek temple of Artemis in Aulis, an archaeological site closely related to religious history and sacrificial rituals, and responded artistically to the location by composing *In Aulis*, a 43-minutes electroacoustic work. The initial phase of the composition included the sonic exploration of the temple through the act of field recording. The recorded sounds were subsequently used as exclusive sonic material during studio work. In parallel, the writing of field notes and journals, the presentation of the work in artist talks and conference papers, together with informal discussions with fellow artists who

participated in the residency generated additional thoughts and further motivated the creative practice.

The other participants of Sonic Topographies were Danish sound artist Jakob Kirkegaard, who worked at the Euripus strait in Chalkida, Athens-based visual artist Georgia Kotretsos, who explored the medieval castle of Casteli and Greek experimental musician ILIOS, who composed a piece based on recordings he made at the ancient theatre of Evia. The project was documented by director Stefanos Kosmidis who visited each resident on site and filmed their methods, tools and techniques. The film was premiered on December 11th 2016, during a presentation of the residency project at 6 d.o.g.s, a multi-purpose art venue in Athens, Greece. The event also included sonic performances by the participating artists.

5.3 The temple of Artemis in Aulis and the myth of Iphigeneia

The conceptual framework of *In Aulis* was based on the historical and religious background of Aulis and the temple of Artemis. Aulis was originally a port-town, located near the Euripus Strait, approximately 80 kilometres north of Athens. It was inhabited since the Mycenaean period (16th-12th century BC) and during ancient times it was an important and thriving religious centre. The temple of Artemis was built in 5th century BC and destroyed in 4th century AD, most possibly by Goths. Several other buildings were added during the Hellenistic period, including the complex baths (thermae) of the late Roman era. The ruins were brought into light during an excavation curated by archaeologist Ioannis Threpsiades in 1956.

Despite its archaeological interest, the location is significant primarily for the story that is related to it. According to the myth, the Greek fleet gathered in Aulis to set off for Troy and force the return of Helen. While there, king Agamemnon killed a stag that was sacred to goddess Artemis. The enraged deity ceased all winds, thus preventing the ships from sailing. This eventually led the Greeks to agree to sacrificing Agamemnon's daughter Iphigeneia, in order to propitiate Artemis and ensure a favourable wind for their fleet. At the very last moment the goddess felt sympathy for Iphigeneia and replaced her with a stag which was killed instead of the girl.

The practice of sacrifice was universal among societies in ancient times as an act of awe-inspiring transformation of chaos into order. This intense transformation generated the notion and experience of the sacred while the sacrificial victim, whether human or animal, elevated to the level of a deity (Stephenson 2015: 35). In Ancient Greek religion and culture, the act of sacrifice originates in the ritualization of hunting (Bell 2009: 173). Indeed, Artemis, whom the temple in Aulis was dedicated to, was the Olympian goddess of hunting.

Iphigeneia's dramatic story is described by Euripides in his famous tragedy *Iphigeneia in Aulis* which he wrote in 406 BC. The play was written during a period of conflict, political turmoil and instability and it arguably functions as an allegory in which Euripides, exiled from Athens at that time, warns his fellow Athenians about the consequences of war and the thirst for power and dominance as well as the hypocrisy of military and political leaders.

Historically, sacrifice was used as a method of establishing and maintaining social order through the repression of violence; it functioned as a substitute for the violence threatening a community. By extension, however, it also manipulated social behaviour and triggered extreme actions, including murder (Driver 1998: 103-105). It is therefore reasonable to assume that Euripides used the theme of sacrifice in an almost ironic manner to criticize his contemporary socio-political regime as oppressive and deceitful. Sacrifice is a ritual performed by a community which ties its members together and forms their social reality (Fischer-Lichte 2008: 30-31). It can be a communal act of transformation and communication but also, like many rituals, a tool for control and manipulation. Regardless of purpose or function, sacrifice gives rise to the birth of myth, religion and civilization (Bell 2009: 173).

As a type of modern-day "pilgrim", I arrived in Aulis to reflect on Iphigeneia's myth and explore sonically the physical properties of the location. Nowadays there is little left of the ancient buildings. Only their ruins continue to remind the importance and history of Aulis (Figure 8). The area is neglected by local and national authorities but for typical reasons the curators of Sonic Topographies had to provide me with a licence to access the archaeological site. However, any visitor can simply push aside a half-broken wire fence and enter the archaic holy grounds, lying between a highway and a local road leading to a disused cement factory. Walking through the flora that is

gradually covering the ruins, one can witness the blending of nature with human-made constructions and the folding of the distant past with the modern era.

Some materials have been removed due to 3rd party copyright.
The unabridged version can be viewed in Lancaster Library -
Coventry University.

Figure 8. The ruins in Aulis

The method of responding artistically to historical locations was extensively utilized by composer Iannis Xenakis. In his youth, he spent time in the fields of the battle of Marathon in an attempt to listen to the distant messages of Ancient Greek civilization transmitted throughout history. Xenakis got inspired to compose his work *Mycenae Polytope* after visiting the ancient site of Mycenae in Peloponnese. The *Polytopes* were a series of multi-media works in which Xenakis utilized electroacoustic music, various types of ensembles, choirs, actors, laser beams and special light effects, fire, and, in the case of *Mycenae Polytope*, herds of goats. The enactment of *Mycenae Polytope* took place at the ruins of Mycenae in a unique combination of technology and archaism. Xenakis' intention was to alert his contemporaries about the inevitable decline of any civilization and to suggest that societies must dispose of their vanity, be thoughtful about their actions and aware of their consequences (Xenakis 1978). In a similar manner, I explored the physical space of the temple and interrogated the concept of sacrifice with the purpose of applying the research results to electroacoustic music composition and, furthermore, identify its contemporary social function.

5.4 Music and sacrifice

Is there a connection between the sacrificial act and musical performance? How is sound utilized in ritualistic murders? *In Aulis* drew inspiration from the history and concepts of sacrificial rituals and interrogated theories about music and sacrifice through fieldwork, performative activities and electroacoustic music practice. According to Jacques Attali, “listening to music is to attend a ritual murder” (1985: 28). Attali explains that in the physical world a ritualistic murder purifies violence and in the sonic world music does a similar thing. As the story of the Greeks in Aulis shows, sacrifice is performed when a problem requires a radical solution; the wind must blow and Agamemnon’s guilt must be transformed into redemption. With sacrifice a tension leads to resolution. In music, as Attali argues, it is noise and dissonance that become harmony when the chaos of sounds is organized and put into order through the act of music-making, when a sonic condition of anxiety and alert is transformed into joy and exaltation (1985: 21-45). Similar thoughts are expressed by conceptual artists Thanasis Chondros and Alexandra Katsiani who claim that “art is an aesthetic substitute to a sacrificial act, a form of mysticism of existence that leads to catharsis” (2015). This standpoint underlines not only the purely aesthetic dimension of art, a rather recent phenomenon in human history, but more importantly art’s utilitarian aspect, the purposes it serves and the meanings it creates.

In music, the meaning is revealed in its use within a specific social context and not merely in the analysis of its components and elements (Attali 1985: 25). As discussed in previous chapters, meaning in music emerges through performing. Scholar and researcher Anita Hammer argues that the amount of essential differences between religious and artistic performances is insignificant as they are part of the same social, aesthetic and spiritual field. She uses the term “spiritual performance” to describe both artistic and religious performances as ritualistic activities of communication and transformation. Similar to a musical work, the notion of sacred, as established from the transformation of chaos and violence into order, is not perceived as a static object with fixed properties which must be preserved unchanged in time. Instead of being rooted on set ideas, religious beliefs about the sacred develop through practice; through acting, performing and triggering an ongoing and dynamic dialogue between humans, human societies and divine beings (Hammer 2012).

The first practical and creative method for composing *In Aulis* was field recording in the sacred and sacrificial location of the temple of Artemis and the wider area. Influenced by the history of Aulis and related researched theories, this method was an exploration of the performative and ritualistic dimension of field recording.

5.5 Recording in Aulis

*There is not a sound from the birds
or the sea. The winds are hushed
and silence holds the strait of Euripus.*

Euripides, *Iphigeneia in Aulis*, lines 9-11

In these lines Agamemnon describes the sonic atmosphere of Aulis, an eerie silence caused by the absence of wind. For the Greeks, this stillness created discomfort as they were unable to mobilize and sail to Troy. Around 2,500 years after these lines were written, I was at the same location, attempting to listen to the echoes of myth and history resonating in the present-day soundscape of Aulis. Silence was replaced by the familiar sound of traffic hum, coming from the nearby highway; the echoes of the ruins were covered by the motoric sounds of fast-moving vehicles. The antithesis of ancient silence and modern-day noise was partly expected. Aulis was chosen for its historical significance, however on a sonic level it had limited interest. Although the location was conceptually and visually stimulating, its acoustic properties lacked a variety of sounds that could be utilized in a creative practice aiming beyond belittling documentation or conceptualization. With the purpose of deepening my relation with the environment and, in addition, to record diverse sonic material that would later be edited and processed during studio work, the recording methods and techniques required expanding.

The skills acquired in Mooste were extensively utilized in the sonic exploration of Aulis. A primary skill used was building a wind harp, also called Aeolian in reference to Aeolus, the ancient Greek god of winds. Additionally, the Aeolian harp was a response to the theme of wind, which takes a central role in Euripides' play. As discussed in the previous chapter, in animistic cultures winds have mediating powers and can be envisioned as persons with drastic influence on the world. In Ancient Greece this person

was imagined as Aeolus and the harp was left in Aulis after the end of the residency, in praise of the god of winds, as a sonic sculpture, an additional relic. My Aeolian harp used fishing line as string, which was tied to screws nailed on a tree log. The harp also required a loudspeaker to amplify the vibrations of the string. In Aulis I found a plastic cup that someone had thrown away and after piercing it through the bottom with the string and attaching it on the tree, I clipped two contact microphones on it to record in stereo (Figure 9). During the days spent in Aulis the winds were not strong, as is usual in early summer in Greece, nevertheless occasional soft breezes would vibrate the harp enough to make it possible to record its sound (Audio Example 1). The construction of the Aeolian harp transformed the perception of the wind by revealing it as an otherworldly entity, connecting with the physical world through the harp's materials and personified through its unique sound.

Some materials have been removed due to 3rd party copyright. The unabridged version can be viewed in Lancaster Library - Coventry University.

Figure 9. Aeolian Harp

Wind and contact microphones were also combined to record the location's fences. Attaching the microphones on a fence during windy days allowed me to record the resonating wind sound blending with clings caused by leaves and thin branches softly hitting the fence (Figure 10, Audio Example 2). Additional recordings were made when the microphones were clipped on an information sign post placed near the ruins (Figure 11). The wind was vibrating the sign thus creating rumbling sounds, audible only with the use of contact microphones (Audio Example 3). Several days were completely

windless and to make recordings I employed interactive and performative methods, similar to the ones I used in the abandoned farm in Mooste. After attaching contact microphones on the fence and the sign, I used them as sound-producing objects, exploring their sonic possibilities by bowing them with a guitar string (Audio Example 4) or treating them as percussion instruments. As part of the current identity of the temple, the fences, the plastic cup, the sign post became objects of sonic discovery and experimentation.

Some materials have been removed due to 3rd party copyright. The unabridged version can be viewed in Lancaster Library - Coventry University.

Figure 10. Contact Microphones on Fence

Figure 11. Sign post in Aulis

These recording methods reflected on how the wind influenced the predicament of Iphigeneia and the Greeks in Aulis and furthermore on how it affected the temple's sonic character. The performative actions were essentially ritualistic, in the sense that I was mimicking the Greeks with the aim to facilitate changes in nature and affect the physical and spiritual world. The static condition of the fence and the Aeolian harp during the windless days necessitated an action in response, a transformation of stillness into movement, of silence into sound. The actions were also a method to shift the focus from the dominant traffic hum, immediately noticeable when entering the location, to the inaudible micro-sounds that emerge through performing with the aid of technology.

The frequent visits to Aulis lead to a familiarization with the environment and encouraged an extensive exploration that took place during different times of day and weather conditions. Revisiting the temple was a fruitful recording strategy that resulted in diversifying the variety of the sonic material. As discussed previously, on windless days the harp was silent, however on a rainy day, the recording of the harp provided additional sounds, created by raindrops falling on the plastic cup (Audio Example 5). Furthermore, when the temperature was increasing, Aulis' ambiance would include the high-pitched sound of crickets and cicadas that were living in the bushes surrounding the ruins. In addition, the weather influenced not only the recorded sounds but also my physical experience of being on site. Spending several hours exposed under the warm sun was reducing my concentration and accelerating my fatigue. In contrast, on cloudy days when the temperature was lower I was energetic and inventive for a longer period of time. In a total of seven visits to Aulis, each time something new was discovered or explored from an alternative perspective.

Ultimately, the Sonic Topographies residency was not a mere study and collection of information about Aulis and the temple of Artemis but an empirical interaction that transmuted it from a field with abandoned ancient ruins to a space for action and contemplation. Performing and field recording was triggering an ongoing dialogue between myself and the explored environment and deepened my relationship with it on a physical and conceptual level. This dialogue was developed further during studio work, the next phase of the composition.

5.6 Sonic reconstructions

The end of the residency and the studio work that took place afterwards raised a series of additional questions. How did the experience of visiting Aulis and conducting fieldwork affect the aesthetic decisions of the composition? How could the recorded sounds be manipulated and utilized in the studio? How did the myth of Iphigeneia's sacrifice, the play of Euripides and the history of the ruins influence the structure and live performances of *In Aulis*?

The recorded sounds, as symbolic data collected in the field, are a documentation and representation of Aulis and its related history. Moreover, they function as an evocation

of the memory of being in the field. At the beginning of the studio work there was a struggle to disregard the connotations of the sound sources and the conceptual framework of the piece in order to perceive and utilize the sounds purely as sonic material. The aesthetic inquiry of the material's sonic identity prolonged the composition process. However, this delay was beneficial since the aesthetic and structural decisions of the work were thoroughly negotiated, over a long period of time. This contrasted composing *Everything emanating from the Sun* where the original sketches were composed essentially while still in the process of recording sonic material, which resulted into the hasty early versions that were discussed in the previous chapter. In the case of *In Aulis*, the clear separation of field and studio work allowed full focus and devotion to each separate composition phase and made the process more detailed and mindful.

The original intention was to compose a three-movement piece with each movement reflecting on a line from *Iphigeneia in Aulis*. The lines were “Silence holds the strait of Euripus” (line 11), “What is below the ground is nothing” (line 1249) and “A song in praise of Zeus’ daughter, Artemis” (line 1467). However, the composition is only loosely based on this initial idea. Electroacoustic composer Trevor Wishart (2014) points out that a strict plan designed before the studio work will most likely fail as the sonic material will react to imposed structural ideas. Similar to the final version of *Everything emanating from the Sun*, it was the sonic material that ultimately determined several parameters in relation to duration, volume, transition and combination of sounds and it was essential to ignore, at least partly, any pre-fixed structure or extra-musical input. This strategy embraces Takemitsu’s claim that “when sounds are possessed by ideas, music suffers” (1995: 4) since the aesthetical intention of *In Aulis* is not a sonic representation of Euripides’ play, although informed by it, but the creation of a work open to varied interpretations.

The composition consists of four sections and a coda, each edited and mixed in a separate Reaper project. The rendered sound files from each project were sequenced to give *In Aulis* its final form (Figure 12). The first section of the composition functions as a distant reference to the ancient silence of Euripus. It is primarily based on a dialogue between low-volume rumbles, created by filtered sounds of wind, and crackling sounds of fences and branches, recorded with contact microphones. Moreover, a recording of the ambience of Aulis is added to create a sense of depth and distant movement. The

first Aeolian harp sound is introduced at 9'34" while the volume of the rumbles and crackles increases slowly until the bang at 10'19". The transition from the first to the second section is very gradual as the sounds of branches continue until 12'28" when new harp sounds are added (Figure 13).

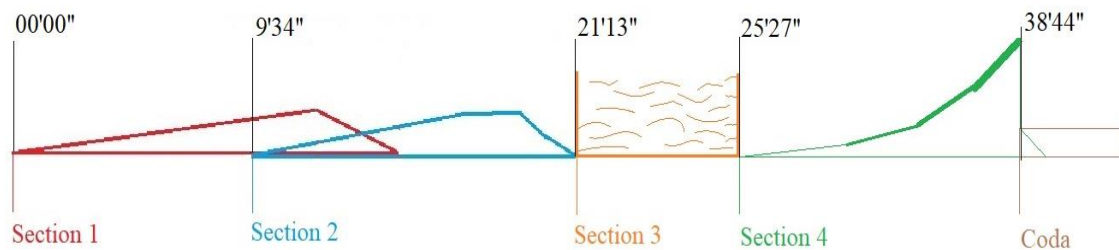


Figure 12. *In Aulis*

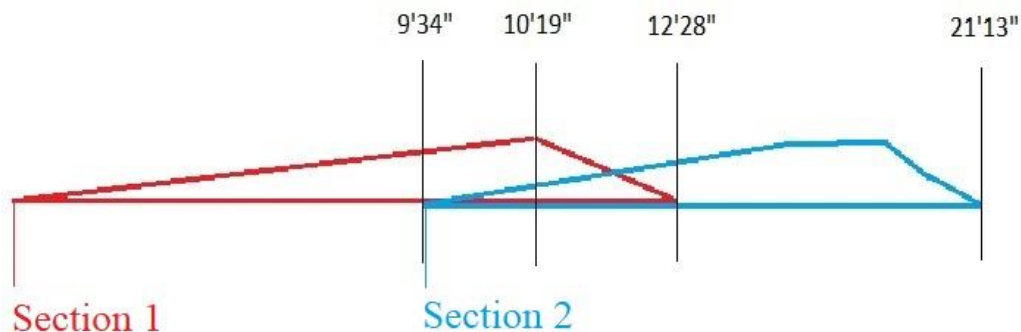


Figure 13. *In Aulis* Sections 1 and 2

The second section is a montage of recordings of Aeolian harp sounds. The harp adds an extra “voice” to the wind that creates a ghostly atmosphere and the sounds resonate within a narrow tonal range; a feature of trance and possession music. The tension of this section is built by adding extra layers of edited harp sounds that are pitch-shifted and time-stretched, as well as low-frequency thuds, bleeps and soft buzzes. Another element is a drone, based on an additional recording of Aulis’s ambience. In this recording an omni microphone was placed inside a plastic bottle, thus creating a resonant tone that contributes to the section’s ethereal character. Eventually all harp sounds, thuds, bleeps and drone fade out until the only remaining sound is the buzzing. This sound is an unprocessed monophonic recording of insects, recorded with a hydrophone in a pond near the ruins. The recording was imported in two different audio

tracks; the first half of the recording is panned left and the other right, to create a stereo image.

The third section begins abruptly in 21'13" with a dynamic gesture that contradicts the fluid and tranquil narrative of the previous section. The aim is to shift the direction of the composition from establishing a sense of space and movement to generating a monotonous and uneasy tension, in search for a resolution. This part consists of numerous loops of varied durations. The loops are edits of time-stretched fence sounds bowed with a guitar sting, coupled with repetitive thuds and panning hisses. The section ends at 25'27" with a dramatic and sudden cut that leads into the next section.

The low-volume hollow drone that follows marks the beginning of the fourth section and it is an exploration of silence, without an external reference to the quiet atmosphere of Aulis. The quiet atmosphere creates a condition of anticipation, a preparation for an upcoming forceful sonic experience. This condition is enhanced by the sound of crickets that resonate in high frequencies, approximately between 9000 to 12000 Hz, creating thus high pitch modulations that are common in trance and possession music. The section continues with a slow and powerful crescendo, including loops, drones and granulated sounds, that functions as a praise of Artemis. This focused crescendo - an additional feature that is regularly used in trance and possession music - is developed through discrete fade-ins as well as sudden and drastic bangs where additional layers are introduced, leading to a full-range blasting wall of sound. The purpose is to give to the listener a sense of physicality, unpredictability and alertness; the sacrificial ritual is not smooth or calming but an act of tension and violence.

The abrupt cut at 38'44" can be interpreted as the miracle of Artemis saving Iphigeneia's life. However, the intention remains to trigger diverse responses from the listener, without being restricted to a specific idea about a musical gesture. In addition, this particular interpretation did not emerge until writing this chapter, more than a year after the piece was completed. Nonetheless, the whole section is inspired by sacrificial murder and the cut signifies catharsis, leading back to a transformed sense of being-in-the-world. In this spirit, the density of the crescendo is followed by a resolution that takes the form of a low-volume coda based on sounds of raindrops and ants that were recorded in the temple.

The division of the work in distinct sections simplified the process of editing excerpts that were performed in two symposia concerts. Each excerpt, lasting approximately 15 minutes, maintained an autonomous identity and according to audience's informal feedback, their performances were intense listening experiences. One excerpt was performed at INTIME Symposium at Coventry University on 25th of October, 2015 and an additional one was performed at Bangor University on 6th of January 2016 at the Research Student's Conference, held jointly by the British Forum for Ethnomusicology and the Royal Music Association.

For both concerts the piece was based on a two-channel audio file diffused in real-time on an immersive sound system. The multi-speaker set up created a sense of imaginary space, a sonic reconstruction of the temple, based on the recordings made at its ruins. The loudspeakers replaced the pillars whereas the mixing desk set in the middle could be imagined as the sacrificial altar. The performances of *In Aulis* folded two spaces together, the physical of the concert and the imagined of the temple, and created a new one that brought together the ancient act of sacrifice and the contemporary practice of acousmatic music.

5.7 Beyond Aulis

“If we wish to reawaken in mankind the true artistic mood, we must, to a certain degree, transport ourselves back into those ancient times when the celestial, the poetic mood, lived in the human soul” (Steiner 1964: 62)

For Rudolf Steiner, embracing the ancient approach to the human psyche leads to artistic truth, aiming towards spiritual enrichment. Moreover, he argued that through art and sacrifice human beings participate in the shaping of the world and establish a “soul-connection with cosmic evolution” (1964: 67). Andrei Tarkovsky, who was sharing similar ideas about the purpose of art, was interested in the absurd and irrational aspect of the sacrificial act that, nonetheless, makes fundamental changes and establishes equilibrium and harmony. He defined the changes as miracles, containing a truth that transcends materialistic laws (1989: 217, 229). Therefore, sacrifice is not only a tool to encounter and celebrate the divine but also to create it. In sacrifice, gods and spirits are not only praised but also being born and remain in existence. In other words, gods and humans are in reciprocal need (Driver 1998: 97).

Respectively, the cathartic process of music-making leads to spiritual breakthrough. According to Greek composer Jani Christou, the aim of music is to “create soul” which gives birth to myths, through “transformations of acoustical energies”. As merely an object of aesthetic pleasure, music is wrongfully perceived as luxury, however, as Christou claims, music emerges as a primal need that inhabits the most profound and subconscious levels of the human psyche (Lucciano 2000: 92-93). This standpoint demonstrates that music, similarly to sacrifice, is an imaginative generator of myths, a form of narrative knowledge “in search of a relation towards the inscrutable” (Cobussen 2008: 55). Music performances are essential for the development of human spirit and social context among communities.

In the core of the sacrificial act is the setting of relationships which expand from the world of gods, or the unseen and ethereal, to the world of humans, the rest of the society (Driver 1998: 98). Similarly, from an ethnomusicological perspective, music making, despite being the production of sounds that are defined as music, is also a socially constructed activity that brings communities together (Titon 1997). Euripides provides an insightful example of this. When Iphigeneia finally accepts her fate, she addresses the chorus and says:

*And you, young
women, sing a propitious song for my fate, a song in praise
of Zeus’ daughter Artemis. Let the Greeks keep propitious
silence.*

Euripides, *Iphigeneia in Aulis*, lines 1467-1470

These lines reveal that sound is utilized in sacrifice to bridge the divine with the human world. Through singing and listening, music creates social bonds, manifests a divine presence and establishes a relationship with it. These emerging relationships create a “spiritual feedback loop” between spirits and humans, the ethereal and the material. While gods and spirits appear in an intangible sonic form, through blood sacrifices they also enter the physical world where blood represents their bodily dimension (Davis 2010: 138). According to Wittgenstein, human response to these violent actions is profound and sinister not because of the knowledge of their history or out of compassion for the victim’s suffering but because humans get actively and emotionally involved, by considering them as inner experiences. These actions and reactions are a

result of humankind's separation from the cosmos, its disengagement from Steiner's "soul connection", and worship is the tool to reconnect with it (Wittgenstein 1993: 147). This unconscious distress is penetrating the soul of music, as described by Christou, and creates an intense feeling, sometimes disturbing or even scary. In this light, the sacrificial act and listening to music are inner and communal processes of transformation; they are powerful rituals that take the "form of the awakening spirit" (Wittgenstein 1993: 139).

In Aulis is an exploration of the relationship between electroacoustic music practice and the act of sacrifice. The processes of composing and performing embraced both feelings of consternation and comfort. Despite the potential risk of becoming an uneasy experience of manipulation and shock, this research suggests that electroacoustic music should highlight and focus on the connection between the physical and the ethereal world with the aim to intensify the listening experience and amplify its social impact. Electroacoustic music is an addition to the world, beyond a representation of it, contributing to the creation of new myths, personally imagined and communally constructed. For this purpose, the model of sacrificial ritual functions as a platform for audience engagement; the concert transforms into a collective experience of intensive profundity.

The research about the temple and the fieldwork at the ruins expanded from investigating its history and recording sounds for an electroacoustic composition to a contemplation on passing time and an exploration of the depths of human soul. The outcome reflects on the idea of "corporeal" art, by American composer Harry Partch who imaged music as a "physically involving experience of sound, word, myth and action" (Griffiths 1978: 116). Besides being self-reflective and imaginative, the experience is also political in the sense that achieving a type of self-awareness during an insightful experience, makes, in extension, the listeners aware of their responsibilities towards each other (Blacking 1977: 28). *In Aulis*, as an acousmatic musical sacrifice, underlines the socio-spiritual relationships between composer, audiences and the otherworldly and encourages a liberating celebration, a festivity of the Cosmos' truths and mysteries.

Chapter 6: Shift - From routine to ritual

6.1 Introduction

Everything emanating from the Sun and *In Aulis* investigated the sonic identity of rural locations with natural and historical significance. The research focused on the relation between sounds of nature and spirituality, and compared music-making with the primal act of sacrificial rituals and the creation of myths. The two compositions generated a notion of transformation, mystery and sacredness. Is this notion linked mainly with rural soundscapes and ancient rituals or can it also be experienced within a contemporary urban framework? Is there a transcendental dimension in mundane city sounds, and how can it be explored and perceived through electroacoustic music practice?

This chapter discusses *Shift*, the third creative outcome of this research, an electroacoustic composition that investigates the spirituality of sound in urban environments through the sonic and conceptual exploration of architectonic sites in the city of Kaunas in Lithuania. The work aims at discovering the sacred and profound in what is commonly perceived as profane and ordinary and interrogates the socio-political conditions of urban field recording locations and their relation to acousmatic music performance.

The title refers to the dynamic shifting of ideas, identities and meanings, as they are discovered and explored through artistic practices. The two sub-titles, *Inwards* and *Outwards*, indicate the constantly shifting direction of discovering; a process of turning inwards to gain awareness of the inner self, and outwards to develop a connection with the every-day environment and its sounds. *Shift* was conceived and developed during an artist residency that took place in Kaunas in September 2015. The composition's conceptual framework was interrogated through multi-disciplinary artistic methods resulting in an electroacoustic music performance and an audio-visual installation. The ideas explored during the residency were analysed further through reflection on its artistic outcomes and additional theoretical investigation. The studio work, that took place in October 2015 in London, culminated in the two-part composition, released online by the Canadian net-label No Type/Panospria in September 2016 (Sakellariou 2016).

6.2 The residency in Kaunas

From September 21st to October 4th of 2015 I participated in “Cotemporal Encounters: Interdisciplinary Approaches to Sound, Memory and Place”, the artist residency programme of Kaunas Biennale 2015. During the residency, twelve sound and visual artists from European countries, including Lithuania, Italy, Croatia, Norway and Denmark, conceptually and physically explored a number of architectural sites in Kaunas. The participating artists were paired to create collaborative audio-visual installations and theatrical and sonic performances that were presented at the end of the residency.

I collaborated with Croatian media artist Hrvoslava Brkušić and together we worked on an installation piece and an electroacoustic music performance. The collaboration generated an exchange of ideas and methods. Brkušić’s background in film-making, installation and experimental music improvisation provided the opportunity to compare practices and explore the conceptual and creative aspects of my research from an extended angle. During the preparation of the performance and the installation we developed common strategies and artistic language. Furthermore, through ongoing discussions we reflected on the subject of study - the architectural characteristics of industrial Soviet buildings in Kaunas.

With a focus on urban landscape, the artistic practice was initially informed by Rudolf Steiner’s ideas about architecture. He claimed that the values of architecture derive from the belief that buildings function as pathways of the soul into the spirit world, after the physical death of the body. As it is apparent in ecclesiastical architecture, buildings have a spiritual dimension, beyond the utilitarian. Steiner argued that human beings construct buildings not merely for shelter and protection but also in an attempt to find answers to spiritual questions. “Architecture unfolds out of the principle of the soul’s escape from the body” (Steiner 1964: 22). Nonetheless, typical Soviet buildings appear to be built solely for materialistic purposes. Efficiency and practicality were prioritized and the homogeneity of houses, factories, shops and office spaces reveals that in the atheist Soviet regime metaphysical considerations and questions about man’s position in the world were degraded or even banned. The two collaborative works presented in Kaunas aimed to reverse buildings’ identities and transform them from overlooked locations of monotony and routine into spaces of exploration and wonder.

6.3 Recording in factories – The sounds of the machines

The Soviet buildings were primarily explored through the method of field recording. The first visited location was Pluoštas, a disused fabric factory built in 1932. During the Biennale, Pluoštas was used as an exhibition and performance space and we were allowed to enter its premises on a day when no other artistic activities were scheduled. We spent several hours in the huge and derelict building, walking around its corridors (Figure 14), staircases and rooms of various sizes.

Some materials have been removed due to 3rd party copyright. The unabridged version can be viewed in Lancaster Library - Coventry University.

Figure 14. The corridors of Pluoštas factory

The soundscape of Pluoštas consisted mainly of a low-volume hum, presumably created by ventilators operating in the building. Distant traffic noise was also audible, muffled by the thick walls of the factory. With Pluoštas lacking sonic variety, I recorded sounds generated by performative actions, repeating the methods used in Aulis. I clipped contact microphones on a metallic panel and explored it sonically by creating rumbles, bangs and crackles (Audio Example 1). Nevertheless, there was a difference between recording in Aulis and in Pluoštas. The performative and interactive methods were also collaborative as I demonstrated and shared them with Brkušić. The aim was to deepen the understanding of our artistic practices and engage in a dialogue that would improve our collaboration and lead into more insightful outcomes. In response to these methods,

Brkušić performed on the handrails of a staircase and the concrete surface of the ground floor, by triggering sounds with the use of a steel wire while I was recording from the third floor (Figure 15, Audio Example 2). These performances did not have an autonomous structure but functioned as a collaborative process for recording diverse material and as a method to explore the factory's architectonic properties and expand its sonic identity.

Some materials have been removed due to 3rd party copyright. The unabridged version can be viewed in Lancaster Library - Coventry University.

Figure 15. Brkušić performing in Pluoštas factory

In addition to recording sounds, we also collected found objects for the installation piece. The main idea, conceived by Brkušić, was to use material that has fallen on the floor, mainly plaster, and make a surface in the exhibition space where visitors could walk on and create sound themselves, similarly to when walking around in Pluoštas. We filled several bags with pieces of plaster that we removed from the walls or simply picked up from the floor and transferred them to the gallery space. The ethereal (sound) and physical (plaster) types of material collected at Pluoštas were practically and theoretically interrogated in a direct comparison between music performance and installation.

The second explored location was an industrial complex, housing a number of operating factories and working spaces. From an aesthetic and artistic standpoint, industrial

sounds have a significant history of influence on music. Even before 1913, when Luigi Russolo, in his famous “Futurist Manifesto”, wrote about the delight of musically exploring the noises of trams and automobile engines, composers like Stravinsky and Varèse were listening to the increasingly noisy soundscape in a musical manner (Toop 1995: 77-78). This soundscape was already influencing people’s lives as a characteristic sonic by-product of the Industrial Revolution of the 19th century. By submitting to the sounds of the machines, people adjusted the rhythm of their work, previously based on the rhythms of the human body and expressed through singing work songs, to synchronize with the rhythms of the machines that were “viewed as almost sacred, representing both progress and productivity” (Hendy 2013: 220-221). People working in factories are involuntarily exposed to the sometimes unbearably loud sounds of the machines, for several hours on a daily basis. These sounds are woven with routine and regularity; they produce the familiar and ignorable soundtrack of labour. The noise of the operating factories can be exciting to listen to but also highlights that contemporary urban life includes repetition and monotony.

With the aim to explore the dichotomy between the excitement and monotony of machine sounds and make additional recordings for the residency works, I was invited to visit the industrial complex by fellow residency artists Tadas Zaranka and Živilė Labutytė, who was working there part-time. The two artists were collaborating to produce an installation of fabric, plastic objects and quadraphonic sound and shared a common interest in the sounds of the factories.

Contrary to Pluoštas, the complex is sonically very vibrant and intensely loud. In its numerous rooms, various equipment such as pressing, ironing, sewing, weaving machines and laser printers, were producing a variety of dense, full-range and often blasting sounds. I made recordings of large weaving machines (Figures 16 and 17) which were operating automatically under the supervision of a worker. Each machine was operating in an individual tempo and the combination of the sounds of all the machines in the room created a poly-rhythmic soundscape (Audio Example 3). I additionally recorded several machines of various sizes and functions that created a series of rhythmic patterns, low-frequency drones and hissing sounds (Audio Examples 4 and 5).

Some materials have been removed due to 3rd party copyright.
The unabridged version can be viewed in Lancaster Library -
Coventry University.

Figure 16. Automatic weaving machine

Some materials have been removed due to 3rd party copyright.
The unabridged version can be viewed in Lancaster Library -
Coventry University.

Figure 17. The room with the automatic weaving machines

Recording in the factory raised some critical ethical issues. A large number of machines were operated manually and it was questionable how appropriate it would be to record people at work. Although the focus was on the sounds of the machines, how could the presence of the workers be acknowledged in the recording process? Would it be

acceptable to bypass and ignore it? Despite having permission to be on site, the lack of some kind of mutual relationship between myself and the factory staff made recording problematic. The solution was to request Labutytė to operate the machines. Since Labutytė was participating in the same residency as I was, the recordings took the form of a temporary collaboration. Moreover, she functioned as a connecting link between members of staff and myself. She introduced me to one of her colleagues and we had a short conversation about my interest in sound, before the colleague started working with a machine that Labutytė did not know how to use. The act of recording drew the employee's attention to the sounds of her working environment as it was the first time someone pointed them out and expressed fascination with their variety and liveliness. This acquaintance established a basic level of communication, it was a reciprocal exchange that gave the recording, and the recorded sounds, an extended meaning.

The sonic and social reality of the factories signified the presence of the people working there. In contrast to the loud and intense soundscape of the industrial complex, the disused Pluoštas factory is a deserted space filled with silences. The silences, however, do not come as a relief from the ear-piercing noise but are a sign of abandonment, creating an uncanny sense of loss. The static soundscape of Pluoštas resonates the absence of the workers, the decay of the materials, the turbulent history of a past era.

6.4 Unfitted Dust – Installation and performance

How can sound interrogate and transform the identity of the factories? How can artistic practice affect the meaning of industrial sounds and the ways they are perceived by audiences? After the visits to the two factories, Brkušić and I reflected on our experience and negotiated these questions by preparing the installation piece and rehearsing for the electroacoustic music performance. The aim was to expand the sonic stigma and aesthetical value of the industrial buildings.

Unfitted Dust was the title of both the performance and the installation piece. The installation was part of the Cotemporal Encounters group exhibition and the opening took place on October 3rd, at Žilinskas Gallery in Kaunas. The work consisted of found objects, the pieces of plaster brought from Pluoštas, that were assembled as a surface on which people could walk on (Figures 18 and 19). Sounds were created when visitors

were stepping on the plaster, breaking and crushing it into smaller pieces. As time passed and people kept walking on the surface, the plaster eventually turned into dust (Figure 20). Simultaneously, the volume of the sounds of breaking plaster was gradually diminishing, in a resemblance to a very long diminuendo. The piece had a durational element and was considered as finished when plaster was turned into dust and no audible sounds were produced any more when stepping on the surface. This process lasted approximately six weeks, until the exhibition was closed.

Some materials have been removed due to 3rd party copyright.
The unabridged version can be viewed in Lancaster Library -
Coventry University.

Figure 18. *Unfitted Dust* installation, before the opening

Some materials have been removed due to 3rd party copyright. The unabridged version can be viewed in Lancaster Library - Coventry University.

Figure 19. *Unfitted Dust* installation, opening of the exhibition

Figure 20. *Unfitted Dust* installation, final days of the exhibition

The electroacoustic music performance of *Unfitted Dust* took place on October 3rd, prior to the official opening of the exhibition, at the Main Hall of Kaunas Technology University (Figure 21). During the rehearsals leading up to the performance, Brkušić and I went through the process of developing a common musical language. Brkušić has experience of performing with mixer feedback and radio signals processed through effect pedals and her approach to electroacoustic music performance is improvisational. However, we agreed on a set structure based on audio files that I created during studio work, with the aim to balance between the lo-fi textures and unpredictability of live radio signals and feedback and the attentively crafted character of fixed media. In addition, I played with computer-generated sinewaves and mixed and diffused all sound sources in real time on a quadraphonic sound system. The fixed media files contained machine sounds recorded in the factories that were effectively combined with radio static, resulting in thick layers of noise and energetic rhythmic patterns. The sinewaves blended with mixer feedback to create sonic waves that resonated in the Main Hall. The approximately 30-minutes performance was divided in four parts, each with a pre-arranged set of sounds and atmosphere.

Some materials have been removed due to 3rd party copyright. The unabridged version can be viewed in Lancaster Library - Coventry University.

Figure 21. Setting up at Kaunas Technology University

6.5 Unfitted Dust – Duration and audience participation

The two outcomes of the residency were inspired and informed by common artistic concepts and questions and the comparison between performance and installation provides fruitful insights to electroacoustic composition and acousmatic music. The comparison focuses on the duration of the two works, their relation to time, and on audience engagement and participation, their relation to community.

The performance had a set duration, determined by the fixed media that was played back, whereas the installation, despite the idea of the diminuendo, essentially depended on the duration of the exhibition; the work was set to last for as long as the exhibition was open. In the performance, the listeners experienced the work in its whole, identifying a clear beginning and end, thus communally having a full awareness of its entire form. Although members of audiences in concerts might walk out of a performance, it is rarely desirable or even socially welcomed. In contrast, the exhibition setting relies on the idea of visitors individually deciding on the duration of engagement with an installation piece; they determine the entry and exit points of interest from a personal perspective. This comparison highlights the vital importance of the communal experience of electroacoustic music performance as it gives the listeners a sense of belonging and taking part in something shared in the same time and space. A music performance is an activity that brings people together in a ritualistic manner, allowing them to share an “extraordinary sense of embodied togetherness [...], while at the same time allowing for – even encouraging – particularity and uniqueness” (Begbie 2013: 98).

The gradual disintegration of the installation *reflected* time and how it slowly leaves its mark on everything. By mirroring the condition of Pluoštas, the piece was progressing into the future paradoxically while decaying through time. The dust left in the end functioned as a reminder of the transmutations of physical materials and a metaphor on their inevitable fate to slowly change and dissolve. On the contrary, the performance, having a ritualistic function, *created* time, a sacred time, as it is defined in theological terms, that transcends “ordinary temporal duration” (Eliade 1957: 68). Music is performed aiming at an “immeasurable metaphysical sense of time” (Takemitsu 1995: 7) that modifies human consciousness (Rouget 1985: 121). Combining the notion of eternity with the transitory nature of sound, music “indicates that something is

happening in the here and now; that time is being occupied by an action being performed” (Rouget 1985: 121). The information sign of the installation described the piece’s duration as “infinite”. However, the sense of infinity is more present in the fixed and limited duration of an electroacoustic music performance. The sign’s description for the installation, decided by the Biennale curators in typical visual art standards, appeared as an irony.

The comparison of audience engagement and participation revealed additional significant aspects regarding the nature of an electroacoustic music performance. On the one hand, the installation setting encouraged a playful approach that invited visitors, and especially children, to enjoy the experience of walking on plaster and breaking it into smaller pieces. The produced crackling sounds were of secondary importance, perhaps even consciously unnoticed. On the other hand, the performance, with its acousmatic setting, had a different effect. According to verbal feedback I received from members of the audience, the experience was physical and immersive. Most characteristically, a member of the audience talked about falling into trance and a feeling of solitude, despite the awareness of being among people. In a similar manner, another member emphasized the intensity of listening: “It started as a one-dimensional sensuous experience of listening but soon my whole body was part of it. I started imagining alien images”.

The performances triggered imaginative responses from the listeners, including simultaneously an element of physicality and embodiment. The noises, rhythms and silences of the factories, combined with real-time radio signals and feedback, were resonating in the performance space as active sonic entities, transcending their connotations. Through a variety of textures and calculated structure, the performance became a tool for inner-awareness. The entire body participated and vivid images were created, despite the lack of movement or visual stimulus. The acousmatic setting provided a holistic experience, not simply a listening one, stimulating both intellectual and intuitive responses. In the installation, sound was produced actively by the visitors; without their interaction, the piece would have remained “silent”. Nevertheless, its meaning and value were limited within the physical action of walking that eventually functioned more as amusement rather than an act of participation in the sonic making and physical shaping of the artwork.

6.6 Mechanical rhythms

The reflection on the experiences and outcomes of *Cotemporal Encounters*, together with additional research on the impact of machine sounds on music composition, informed the studio work of *Shift*. In the spirit of shifting identities, ideas and methods to create new meanings, *Shift* is significantly reworked and based only partly on the arrangements and structure of *Unfitted Dust*. *Shift: Inwards* was developed from original structural ideas whereas *Shift: Outwards* is a re-edit and remix of the rhythmic sections of the performance. Brkušić's radio and feedback sounds were deliberately excluded as the focus in studio work was fully on the industrial recordings and the ways they can be contextualized and utilized from a revised perspective. The work explores the themes of rhythm in electroacoustic music, the relation between recorded sounds and time and the connection between materiality and spirituality.

The composition drew inspiration from works like *Fabrikas* (2011) by Spanish composer Francisco López. *Fabrikas* is based on sounds of factories and is part of a compilation of compositions that exclusively and explicitly use machine sounds as source material. Composer and lecturer Nicolas Valsamakis also used machine sounds for his fixed media work *Scenes from a factory* (Σκηνές από εργοστάσιο) (2010), which he dedicated to the workers that were present at the factory when he was recording. Other notable contemporary compositions utilizing similar material and related aesthetically to *Shift* are *Hydrostatic* (2013), by audio-visual artist Simon Whetham, a work based on sounds recorded in a steam-powered water treatment plant in the United States; *Funza* (2011), by Colombian sound artist David Vélez, who envisioned machine operators as performers of scores generated by industrial equipment; and *Underground Variations* (2015) by engineer and sound artist Enrique Maraver, that focused on field recordings of daily machine noises, recorded at one of the maintenance centres of the Metro-Transportation System in his home town of Mexico City.

Historically, rhythm has arguably been overlooked in electroacoustic music and could even be considered as an incompatible element, belonging more to electronic dance music culture and aesthetics. Nonetheless, in recent years, rhythm is being re-evaluated and explored more by electroacoustic composers (Neil 2004) and *Shift* aims at increasing this current interest. In the 20th century, factors like technology and spirituality have repositioned rhythm to the heart of music-making. Music journalist Jon

Pareles (2004) uses the term “engine of transformation” to describe the impact of rhythm in music of the 20th century and argues that rhythm generates new ideas and reshapes old ones, it connects the past with the present by setting an order in time. This approach is observed in African music where rhythm dissolves the past into the future thus creating an eternal present (Small 1977: 55). The strong relation between rhythm and time in music is also discussed by author and psychiatrist Anthony Storr who additionally underlines the connection between rhythm and the human body, founded on the repetitions of breathing and heartbeats (1992: 33). This remark links to composer and author Joel Chadabe’s argument (2010) that with the systematic use of rhythm, music is appreciated more physically than intellectually – an argument supported by responses of audience members at the performance in Kaunas.

In addition, composer and instrument inventor Ben Neill embraces the theory of “archaic revival”, introduced by American mystic and author Terence McKenna, where, through technological progress, the artist functions similar to a shaman of primitive cultures. By additionally observing DJ and dance culture, Neill argues that the artist’s work is to “channel the energy of the crowd and create the proper backdrop for their social interaction” (2004). This “Techno-Shamanism” fuels the festivities commonly known as rave parties, where music, most frequently techno, trance and drum and bass, is used to re-enact “the pagan tribal rituals for the twenty-first century” (Davis 2010: 52). According to Neill (2004), the blending of electroacoustic music with rhythm-based electronica will make the former accessible to a wider audience. Regardless, this research suggests that the element of rhythm can also intensify the listening experience of electroacoustic music’s current devotees, without them necessarily getting up from their seats and moving to the dance floor. Besides being challenging as a morphological element, rhythm can aid in amplifying electroacoustic music’s physical impact on the listener’s body and function as a “something-to-hold-on-to” factor (Landy 2007: 28), a compass to navigate into its abstract sonic worlds.

Inspired by the sounds of the weaving and pressing machines recorded at the industrial complex, *Shift* engages in experimentation with emphatic repetitive patterns that create a strong sense of rhythm. Various rhythmical loops and patterns are used almost throughout the piece. In the first half of *Shift: Inwards*, the irregular rhythmic sounds of small sewing machines are edited in three loops of different pitch, duration and equalization that are repeated until the cut at 5’30”. *Shift: Outwards* has a more direct

and clear use of rhythm. This part starts with a loud and slow loop of heavy machinery sounds. The development of the section includes the duplication of the loop with different equalization, together with gradual additions of hissing and sustained sounds that cover a wide frequency range. The pounding rhythm is followed by a short passage of throbbing and percussive sounds leading to a montage of recordings of automated weaving machines. The montage focuses on the poly-rhythmic character of the sound sources, accumulating in a powerful crescendo. The machines produce extremely constant and monotonous sounds, a widespread sonic feature in trance and possession music. The finale consists of an outdoors recording of a factory sounding in the distance, combined with an edited selection from the improvisational performance on the metallic panel at Pluoštas.

6.7 The dust of time

Shift explores rhythm in electroacoustic music with the aim to re-discover and re-establish its fundamental connection to the body and strengthen its ritualistic function. The composition's sonic material was recorded in factories where people give in to the rhythms of machines. Author and improvising musician David Toop claims that due to its short duration, musical composition does not offer the complete experience of listening to machine noise as there are significant differences between audience members, who chose to engage with the sounds, and factory workers, who by obligation are participants in the sound-making for several hours every day. Toop continues by arguing that "sound art challenges this configuration, often working on longer cycles of time and more open structures". This approach may result in a greater appreciation and awareness of the industrial environment of labour (Toop 2007). However, reframing reality through open structures and extended durations functions merely as a simulation of an experience and may lead to an individualistic perception of time that would doubtfully recreate the intense feeling of listening to eight hours of factory noises. In comparison, music does not unfold in the actual time of ordinary daily life, nor attempts to imitate it, but creates a world of virtual time (Blacking 1977: 27), thus generating new meanings and responses. With *Shift*, and its emphasis on rhythm's "striking capacities to engender and sustain community" (Begbie 2013: 97), electroacoustic music becomes a tool for adjusting the mechanical repetitions to human standards and

needs, for re-synchronizing them to the beating of the human hearts, and for exploring the industrial soundscape in a dynamic negotiation of passing time.

“To the dust of time, that falls on everything, both great and small”. With these words, Jacob, one of the main characters of Theo Angelopoulos’ film *The Dust of Time* (2009), reflects on fleeting time and destiny. The film is a journey through space and time, from Stalin’s Soviet Union to present-day Berlin, that negotiates separation, exile, historical events, and the collapse of ideologies. Angelopoulos is using dust as a metaphorical veil that covers materials and time. Nevertheless, his focus is on people and he zooms in on their emotional responses to significant events, like the rise and fall of the Soviet Union, and related personal stories of grief, fear, hope and joy that unfold throughout time. In this spirit, *Shift* is not merely an exploration of industrial buildings and their soundscapes to produce an electroacoustic work. The composition is inspired not only by buildings and their sonic properties but also by people - their presence in the industrial complex, their absence in Pluoštas - and simultaneously invites people to engage and participate in a musical action. Ultimately, the recorded, edited and reanimated sounds of the factories are echoing and triggering thoughts and emotions in relation to people’s lives.

In contemporary urban culture, everyday life is a frustrating quest for conventional success that makes art’s mysteries and inexplicabilities either devalued or perhaps even absent. In these conditions, art and, in extension, music appear to have an escapist dimension. Listening to music is to temporarily disengage from the repressing ordinary world and enter another where no outside stimulus can affect it. However, this activity is not an escape but essentially an adaptation to the external world, an extension of reality (Storr 1992: 105-106). For the members of the African tribe Venda, music is an adventure into the reality of the world of the spirit, an experience of transformation of the individual and collective consciousness (Blacking 1977: 28). Similarly, *Shift* transcends the dichotomy between materialism and spirituality and transforms the profane sounds of factories to energetic and pulsating sonorities, in an attempt to revive the ceremonial dimension of mundane life, including the encouragement of self-discovery, metaphysical quests and the founding of social bonds.

Chapter 7: Silentium - Electroacoustic music and religiosity

7.1 Introduction

This chapter describes the processes of composing *Silentium*, an electroacoustic piece conceived during a residency in Prague in December 2015 and completed in London in March 2016. The piece interrogates the relation between religiosity and electroacoustic music by utilizing sounds of religious origin and ponders on their effect on studio work and performance. The full 50-minutes version of *Silentium* was released on CD in November of 2016 by Pogus Productions, a New York-based record label focusing on electronic, electro-acoustic, and experimental music (Sakellariou 2016). A summary of this chapter is published on “Sonic Field”, an interdisciplinary network of resources around listening, sound studies, sonic arts, aural culture and audio technology (Sakellariou 2017).

In the first two sections of the chapter I present the residency project in Prague and describe its conceptual framework. The following sections include a discussion about the recordings which provided the composition’s sonic material. The chapter continues with an analysis of the studio work and two live performances of the piece. In the last sections I engage in an analytical exploration of the relationship between electroacoustic music and religiosity and reflect on the complete process of recording, composing and performing *Silentium*.

7.2 The residency in Prague

In December 2015, I was invited to Prague by Školská 28 gallery for an artist-residency, also supported by the Agosto Foundation. Školská 28 operates as a communication and multifunctional space for various non-profit cultural and artistic activities. The programming concept focuses on the cultural identity of Prague as well as the specific characteristics of the gallery space – a renovated building located in the centre of the city which functioned as a workshop space for galvanizing metal. Školská 28 organises and hosts a variety of public activities including exhibitions, workshops, talks, screenings and concerts. These special events are presented to the local community with an emphasis on close contact and interaction between artists and visitors.

Agosto is a private foundation and exchange forum promoting social and cultural programs and supporting their connection through an interdisciplinary approach. My residency was the first collaboration project between Školská 28 and the Agosto Foundation and lasted from December 2 to 28. During that period, I presented an artist lecture at FAMU, the media arts and film school of CAS (Centre for Audiovisual Studies) and performed in two concerts, one in Školská 28 and another at the Bloedermittwoch series in Vienna, Austria, presented by Klingt organization.

The residency was an open invitation for free artistic exploration and did not request any specific outcomes. Nonetheless, prior to my arrival in Prague I had decided to use my time and resources there to develop ideas and record material for a new composition. My standard method of composing begins with a sonic topography, as it happened previously in Mooste in Estonia, in Aulis in Greece and in Kaunas in Lithuania. These locations were sonically explored through the act of listening and recording sounds of the environment. However, Prague lacks a variety of sounds that would motivate me to record and then compose with them. The perhaps typical urban soundscape including street noise, trams passing by, buskers performing, etc. could, on a purely practical level, become the material for an electroacoustic piece; nevertheless, for this composition I chose to abandon my method of sonic topography and instead focus on and record some more particular sound sources.

The selection of these sources was primary inspired by *Mortuos Plango Vivos Voco*, arguably the most significant work by British composer Jonathan Harvey. Composed in 1980, the piece is based on two sound sources: the tenor bell at Winchester Cathedral in England and the voice of Harvey's son who was a chorister there. The sounds were digitally processed at the IRCAM institute in Paris, with the aid of MUSIC V - one of the first computer music programs to process digital sounds - and resulted in an octaphonic electroacoustic composition.

In a similar manner, *Silentium* is based on sounds of church bells, recorded in Prague. Moreover, the piece includes sounds of church organs, also recorded during the residency, which substitute the voice as an organic and performed element. Throughout my stay in Prague my time was divided between frequent visits to churches to make recordings and theoretical investigation of the original ideas through book-based research, journaling and discussions with fellow artists.

7.3 Worshipful silence

A church, like any temple, can be regarded as a sacred space. Is there an essence of spirituality embedded in its quiet atmosphere or is this something imagined by the visitor? Can the bell and organ sounds transmit an exclusively religious message or perhaps they can have a purely sonic and musical context? *Silentium* addresses these questions and attempts an aesthetic inquiry on sounds related to religion. Making recordings in Prague was not only a method of collecting sonic material but, moreover, an investigation of the church as a space for musical performance. The experience was profound as listening, performing and recording led to significant moments of expanded awareness and discovery. How did these particular moments inform the studio work, on a conscious or subconscious level, and, more importantly, how can they affect the experience of performing and listening to the composition?

The title of the work is inspired by the “Silentium” signs I regularly saw displayed in churches in Prague (Figures 22 and 23). It should be noted that the title is not a hint at the piece being quiet. For reasons that will be argued in following sections, some passages are indeed very silent, reaching the realms of the barely-audible, nonetheless other parts are rather loud. Therefore, *Silentium* reflects on what author and broadcaster David Hendy calls worshipful silence. This is a term he used to describe the silence of audiences as it has been established in the western concert tradition since the 19th century (2013: 236). This thoughtful silence, required in both concert halls and temples, is a condition that encourages active listening, it creates the liminal state between the natural and the supernatural world. *Silentium* attempts to contextually and sonically bridge the churches’ “silentium” with the worshipful silence of musical performances and suggest a method for electroacoustic music practice.

The following section discusses the aesthetical and practical considerations of recording bells, the first main source of the composition’s sonic material.

Some materials have been removed due to 3rd party copyright. The unabridged version can be viewed in Lancaster Library - Coventry University.

Figure 22. Silentium sign at Loreta Praha

Some materials have been removed due to 3rd party copyright. The unabridged version can be viewed in Lancaster Library - Coventry University.

Figure 23. Silentium sign at Church of St. Joseph

7.4 Bells

The sound of bells play a very significant role in the global history of sound and listening. Throughout the centuries the ringing of bells has been creating for human beings a notion of space and passing time, alongside generating a deep feeling of communication together with a sense of protection from evil spirits. Moreover, the sound of bells shapes the sonic identity and marks the territory of the community that uses them (Hendy 2013: 105-114). In addition, on a theological level, the bell creates a

focal point, a spatial and sonic centre around which the believers form a sacred space which aids them in finding order and meaning in the world (Eliade 1957). The bell sound may be an imaginary metaphor for the voice of God (Rouget 1985: 12) and its ritualistic function can also act as an instrument of authority and power (Bell 2009: 197).

This is depicted vividly in Andrei Tarkovsky's cinematic opus *Andrei Rublev* (1966). In the second half of the film, which takes place in Medieval Russia, the inhabitants of Vladimir see their city being looted and burned by Tatar invaders. When they start to rebuild their homes they also show great interest in the making of a new bell, with the aim to rediscover and redefine their communal identity. The bell, as a symbol of well-being and prosperity, is reconnecting the people of Vladimir and its sound will ring joyfully, as a celebration of a new beginning, and protectively, if necessary, as a warning for potential new threats.

Returning to Harvey's piece, the complete phrase from which it took its title is "Horas Avolantes Numero, Mortuos Plango: Vivos ad Preces Voco" which means "I count the fleeing hours, I lament the dead: the living I call to prayer". The phrase was carved on the tenor bell that Harvey recorded. The bell's message, originally believed to be transmitted through sound every time the bell rang, is a calling to pray and meditate on time passing and on death. Listening to the bells is a form of contemplation and besides having the utilitarian purpose of counting time and communicating messages, their sound is an invitation to trigger and respond to deep human thoughts and emotions.

The recordings of bells during the residency, and their treatment in the studio work, negotiated Harvey's approach and simultaneously reflected on the history and ideas of bell ringing. How much, if any, of the ancient significance and meaning of the sound of bells remains present in a modern European city like Prague and, in extension, in contemporary society? How much of the utilitarian and symbolic function of the bells can be translated into music and how can it inform the composition of an electroacoustic piece?

The recordings focused on the extended soundscape created by the bells, the ways in which they were blending with other city sounds, and not solely on their texture and harmonic content. This recording strategy was influenced by the work of ethnomusicologist and recordist Steven Feld who in his ongoing project *Time of bells* is

recording not only the sounds of bells from around the world but, moreover, how they resonate and mutually affect other sound sources (Feld on Robair 2006). The recordings in Prague were made from a similar acoustic ecology perspective as I was interested not only in the sound source but also in the relations with other sounds and their impact on the environment and its inhabitants.

Prague has numerous churches and their bells create a characteristic soundmark (Schafer 1977: 10), audible in most parts of the city every day on a regular basis. The selection of which bells to record and of the recording time and locations was determined by practical and aesthetic parameters. The volume and the way bell sounds resonate around buildings and streets depends largely on the distance between bell and microphones. A number of recordings were made close to the main source, right next to the church, and the recording includes a loud and relatively undisturbed bell sound. In this recording condition, the disturbances of the bell sounds are few and short, caused when another loud source was getting close to microphones (e.g. a passing car). On the contrary, other bells were recorded from a big distance, thus constantly sounding together with other sources (traffic noise, wind, birds, people talking) and their clarity was affected more drastically. Furthermore, because of the large number of churches located in Prague, it was frequent for different bells to ring and be heard simultaneously. The most characteristic example is when bells ring at midday on Saturdays on Petrin Hill, a location that overlooks the city. The bells are echoing from the nearby and more distant churches creating a “contrapunctus” of tones, resonances and rhythms (Audio Example 1). The day of the recording was windy and the bells were combined with sounds of wind blowing through trees and rolling leaves on the ground. An additional parameter that was considered was the time of the day when the recordings were made. The most active ringing was at 12 noon, especially on weekends, and the more undisturbed sounds were recorded early in the morning, when the overall volume of city sounds is low.

As locals, the members of Školská 28 had a wider awareness of their city’s soundscape compared to me. They provided useful information and suggested I visit particular churches at specific times and days. Furthermore, I used the website “Zvuky Prahy / Sounds of Prague” (Vojtěchovský n.d.) as a recourse and reference point. The moderator, Miloš Vojtěchovský is also regularly involved in Školská 28 activities. Sounds of Prague is an online archive of recordings of the city with a variety of sound

sources, including several bell sounds. Each recording is accompanied by a short description together with information about the location. At the end of the residency I contributed to the website a playlist with my recordings of bells as well as other sounds (Sakellariou and Vojtěchovský n.d.).

7.5 Interiors

Additionally, recording sounds for *Silentium* explored the extended properties of a church's sonic atmosphere. Apart from bell sounds and their ways of echoing around the city, there was a particular focus on sounds of the interior of churches. When entering a church with an attention on listening, several discreet yet significant sounds subtly emerge; echoes of quietness created by whispers reverberating, the crackle of wooden chairs, a door closing, water dripping down the pipelines. I spent a lot of time in silence, listening to and recording quiet atmospheres created by outside sounds blending with interior ones, enabled by and echoing in the architecture of the church. Some of the recorded sounds were the result of short improvised performative actions. The sonic exploration of a church included me walking on old wooden boards to create crackles (Audio Example 2) and clapping my hands or slamming doors to capture the building's acoustics.

Several recording sessions took place at times when churches were open to visitors. To avoid disturbing other peoples' experience, I was using small omni capsules, that were clipped on my backpack, instead of bigger and clearly visible microphones. This discreet setting also allowed me to easily walk around the church and record from different angles.

7.6 Organs

Together with bells and churches' interiors, *Silentium*'s third source of material is based on recordings of church organs. Similar to bells, the sound of organs is strongly related to churches and has an integral part in Christian tradition. Especially since the 16th century the organ has been used as an instrument of ritual in the gathering of communities of worshipers and this tradition continues to modern times (Herl 2004,

131). The organ is arguably one of the most characteristic instruments of Western music culture - from the emblematic works of J. S. Bach to Olivier Messiaen's organ music - and it is still used in contemporary composition. Works such as *Abregisrieren* by Burkhard Schlothauer (2003) and André O. Möller's *Musik für Orgel und eine(n) tonsetzer(in)* (2003), explore the instrument's textures acoustically, whereas electroacoustic works such as Kim Cascone's *Lunar Mansions, for organ and sine waves* (2014), premiered in The Union Chapel in London, and Michele Del Prete's *Selva di varte intonazioni* (2015), performed at INTIME 2015 Symposium at Coventry University, combine the organ's capacities with contemporary digital technology. Also notable is Lithuanian composer Arturas Bumšteinas' *Organ Safari* (2016), an ongoing project of recordings of numerous organs which serve as material for various types of compositions and Robert Curgenvén's *SIRÈNE* (2014), an album in which the Ireland-based Australian composer combines organ sounds with dub plates and turntables.

Before my residency in Prague I had no experience in how organs are played. With the purpose of learning approaches and techniques of exploring the instrument, I organized a journey and met improvising musician Vervan Weston in Saint Mary Magdalene church at Welwyn Garden City. I have no training in keyboard instruments, however the organ offers various possibilities of sound production without necessarily being skilful on playing notes on the manuals. Weston (2015) explains: There is a more physical relationship between the instrument and the player. When each stop is very carefully and slowly pulled while a key is pressed, a myriad of uncertain transitional stages of sound is produced. All of which gives the organist a huge scope for creative use of the mechanisms to produce subtle changes by minute pushes or pulls of the stops. At Welwyn Garden City Weston demonstrated to me these ideas and methods which I utilized in my recording sessions in Prague by experimenting on timbre and micro-tonal changes.

The members of Školská 28 made the necessary arrangements to provide me access to three different organs, two in Prague and one in the village of Skryje, located 70 kilometres west of the Czech capital. These instruments had different characteristics (age, size, number of stops and manuals) and diverse acoustic qualities (Figures 24, 25 and 26). I had the opportunity to spend several hours in the churches, which at that time were empty, and explore the organs extensively.

Some materials have been removed due to 3rd party copyright. The unabridged version can be viewed in Lancaster Library - Coventry University.

Figure 24. Organ at Saint Salvator church, Prague

Some materials have been removed due to 3rd party copyright. The unabridged version can be viewed in Lancaster Library - Coventry University.

Figure 25. Organ at the church of Michael Ange, Skryje

Some materials have been removed due to 3rd party copyright. The unabridged version can be viewed in Lancaster Library - Coventry University.

Figure 26. Organ at Saint Salvator, Academic Parish of Prague

The recordings were made following a specific method. Each session was divided in three parts and in each part the microphones were positioned in different spots of the church. Firstly, very close to the organ – to capture the instrument’s texture, then a few meters further and lastly as far as possible from the instrument – to record its reverberation in the church’s environment. In each part a series of sequences were performed, in an improvised manner, primarily including soft hisses created when stops were set at particular positions, low pulsating frequencies triggered when using the foot pedals and a specific cluster, a chord made up of Bb – B – C and C# notes. These notes were played in several octaves, sometimes in two or three simultaneously, and provided a loose harmonic content. The specific notes were chosen after a dream I had in the summer of 2015. In the dream, I was in a big church, about to perform in a concert. Since lacking the skills of a trained organist, I decided to play only these four notes and then improvise on the order and structure. As a final method, I explored the organ as a percussive instrument. I used a guitar slide to scratch the sides and other surfaces of the organs and I generated thuds and knocks by rapidly pulling and pushing stops in a rhythmical manner.

The element of improvisation was pivotal to the recording sessions. I was responding spontaneously to the sounds and their reverberation in the church, leaving time for them to resonate in the space. Acute listening to the micro-changes and the resonations guided the development of the improvisation (Audio Example 3). The sessions were “here-and-now” experiences where particular moments and spaces gained important meaning. The audio documentation significantly informed and influenced the studio work of the composition, by providing the sonic material and, furthermore, the memory of listening and performing in the churches.

7.7 Studio work

When the studio work started, new questions were raised, both philosophical and practical. How much should the sounds be manipulated, and if, and what would be the conceptual and musical meaning of this decision? These questions were previously interrogated when composing the earlier works of the portfolio but had to be re-examined for *Silentium* due to the different origin of the sonic material. Contrarily to the sounds of machines, insects or rain, the sounds of organs and bells contain harmonic and melodic elements that could potentially dictate note-based treatments. Moreover, the religious background of the recordings in Prague necessitated a revised context compared to rural Estonia, Ancient Greek ruins, or industrial Kaunas.

The purpose of manipulating bells, church and organ sounds in *Silentium* is to raise awareness about their floating and dynamic identity, instead of perceiving them as fixed objects with specific religious connotations. In other words, besides considering sound processing as a technological achievement, the aim is to expand the sounds’ physical boundaries and make them escape from their original meaning so that they can become something else, a ghost of themselves. The use of digital technology is not merely a neutral tool for recording and manipulating sound but functions as a spiritual revelation. It is a transformation that takes place on the threshold of sonic perception, between the original and the processed, the real and the imagined, the audible and the silent. When working on *Mortuos Plango Vivos Voco*, with state-of-the-art software at that time, Harvey acknowledged the huge potentials of the technological tools that were available to him, nonetheless preferred not to be totally seduced by them. Instead, he emphasized that “the territory that the new computer technology opens up [...] will only be

conquered by penetration of the human spirit” (2005). Technology, thus, is the medium, not the purpose of music (Cascone 2014). Harvey manipulated the sounds not as a technical experiment but to initiate a dialogue between technology and spirituality. Therefore, composition is not a mere study on sophisticated music technology but, as composer Toru Takemitsu has described it, a spiritual effort (1995: 79). Likewise, *Silentium* employs the power of music to explore a spiritual world. The piece negotiates the idea of sacred spaces, human communication and silent contemplation. It draws inspiration from religious context and uses the capacity of sound recording and processing technology to bring these ideas into existence.

The atmosphere of quiet churches is musically stimulating and fuels the composition with structural ideas. When entering churches in Prague I was leaving behind the loud and intense world of everyday reality to go into a quiet environment that was transforming into an alternative cosmos. The outside urban noise was filtered into subtle resonations and the sense of fast tempo, dictated by the movement of people, cars and trams, slowed down to an almost complete stillness. The composition follows similar models in its structure. The antithesis of volume levels, the dramatic dynamic changes aim to open passages between worlds and stimulate a primitive effect of submerging into the mysterious. The shifts between atmospheres, either smooth or abrupt, are carefully engineered and positioned in the piece. *Silentium* juxtaposes and combines full-range clusters, barely audible low rumbles, unprocessed field recordings, crackles and hisses in various dynamics and lengths. The level of sound manipulation and the duration of the composition’s sections was a combination of intuition, acoustic coherence and decisive moments of shifts from one passage to another, all based on intensive and repeated listening of the material.

Silentium extensively explores silence and nearly inaudible sounds that function as a fundamental aesthetic and structural element. In the section between 18’55’’ and 19’56’’ absolutely no sound is produced, time is filled with digital silence, but although “silence is supposedly an absence, the withdrawal of noise (in all senses) is replaced by a louder phenomenon, a focusing of attention” (Toop 2004: 42). Silence is not the goal but the tool that creates an openness to otherness, inviting the listeners to challenge their sonic imagination and acoustically explore their environment (Cobussen 2008: 117). The section is not the end of the first half nor the beginning of the second. It is not a gap, it does not split the composition in two; it is transition and suspension

simultaneously. In a musical sense, it appears that nothing happens, however the lack of sound offers the listener a chance to contemplate on what was heard before and prepare for what will follow. The section also aims at intensifying the physical and emotional impact of the unexpected knock at 23'07". Through the contrast of volume between digital silence, the discrete whistles and hisses that come after, and the knock, the latter is perceived as an extremely loud sound. It is a sonic event that establishes a new atmosphere and sets a new direction in the narrative of the composition in the most emphatic manner.

7.8 The performances

The completion of the studio work was followed by two performances of *Silentium*. On May 28th, a 20-minute 5.1 variation was premiered in Klingt Gut! Symposium at the Arts and Media Campus in Hamburg University in Germany and on July 23rd an alternative 2-channel version, lasting approximately 40 minutes, was performed in a concert presented by INTIME - the research group at Coventry University - at Saint Andrew's church in Chippenham, UK.

The reason for mixing a shorter version in 5.1 format was practical. At the time of the submission the studio work for *Silentium* was not finished, however, I had completed a c.25-minutes rough mix. After the acceptance of my proposal, the organizers of Klingt Gut! strongly encouraged me to present a multi-channel version of my piece as they were planning to accommodate sonic performances in Holodeck, a special 3D Audio room with 18 speakers and a sub-woofer (Figure 27). This black box-type room is mainly used for film screenings and light design tests and during my performance it was completely dark. The audience consisted of around 20 people, the majority of them also participants in the symposium.

Some materials have been removed due to 3rd party copyright. The unabridged version can be viewed in Lancaster Library - Coventry University.

Figure 27. Holodeck 3D Audio room at Arts and Media campus, Hamburg University

The concert at Saint Andrew's was organised in collaboration with the, at that time, church's resident organist and director of music David Dewar. Besides *Silentium*, the programme included three acousmatic works composed and performed by the director of INTIME Dr Tom Williams. INTIME also provided technical support as all equipment necessary for the concert was supplied by Coventry University. The set up consisted of five speakers, a sub-woofer and an analog mixing desk and it was proven sufficient to support the requirements of an acousmatic music concert in the church (Figure 28).

The variation of *Silentium* performed in Saint Andrew's was close to the final studio version. The first section was omitted as it includes loud sounds in low frequencies that with the available small sub-woofer would produce an inadequate physical and acoustic impact in the church. Furthermore, towards the end of the performance I decided to also omit the last section with the distant carillon sound. The aim was to avoid any obvious reference to the origin of the sound source. An undisturbed carillon sound at the finale of the performance in the church would function more as a quotation, instead of an autonomous sonic entity, and raise a risk of generating an apparent and forced sentiment related to religious sounds and perhaps even an undesirable irony.

Some materials have been removed due to 3rd party copyright. The unabridged version can be viewed in Lancaster Library - Coventry University.

Figure 28. Saint Andrew's Church in Chippenham, UK

The performance began at 8.30 pm and took place under the natural light that was coming into the church at that time. As the piece progressed, it was getting dimmer and at the end of the performance the church was nearly dark. The audience consisted of approximately ten people who attended with curiosity to listen to unfamiliar, to them, music and witness an alternative way of musical performance. Electroacoustic music concerts are extremely rare in Chippenham, nonetheless the audience engaged positively. Appreciation, fascination, the stimulation of senses and enjoyment were words used by most listeners to describe the experience to David Dewar.

7.9 Sonic identity

Although of practical origin, the re-editing of *Silentium* and its performances in diverse spaces stimulated a series of aesthetical, epistemological and ontological questions. When entire sections of a piece are omitted, can it be considered the same piece or an entirely different work? How was the composition's identity affected by the architectonic differences between Holodeck and Saint Andrew's? How was the performance perceived as part of a three-day symposium in comparison to an autonomous event?

The bell and organ recordings became the sonic material for the studio work, resulting in a composition which in its turn was used as sonic material for the performances. This gradual process influences drastically the identity of the sounds as in each phase they reveal transformed qualities and meanings. In its every performance *Silentium* is keeping several fundamental elements intact. It remains a work which draws inspiration from a particular set of ideas that influenced the methods of composing. Moreover, it utilizes specific sounds of bells and church organs and follows specific strategies for processing, structuration and sonic coherency. However, and despite being based on fixed media, each performance is unique. The electroacoustic work is shaped and affirmed during the performance by the intellectual and emotional response of the listeners. Activated by the reanimation of the digital audio file, it is appreciated according to its impact on the audience. The experience of listening to *Silentium* was directly influenced by the performance spaces and the social framework of the concerts, thus making its identity dynamic and fluid. What primarily distinguished the performances between Hamburg and Chippenham was the relation between sound and the physical characteristics of each performance environment and less the technical settings of the concerts. The dark and acoustically dry Holodeck and Saint Andrew's bright and reverberant environment were equally vital elements of the performance as *Silentium* was enabled in and limited by the architectonic properties of the two spaces. The fixed media created in the studio remains the connecting link that triggered both experiences. It is the sonic material that determines the aesthetic quality of the work since a different composition would generate different aural and physical relations between sounds and performance environments and, consequently, diverse reactions and responses from the listeners.

Is the church adding an element of religious profoundness that triggers a deeper emotional response to music? Are religious connotations essential in creating a feeling of awe and mystery and is this feeling stronger when the piece is performed in a temple and diminished in a dark room? Are audiences accessing a spiritual world in church concerts and, contrarily, focusing their attention on techniques and technological tools in symposia performances?

In Hamburg the performance was part of a bigger event and the audience consisted of audio specialists whereas in Chippenham part of the audience experienced an acousmatic music performance for the first time. In Holodeck the audience had to rush

in from the previous performance and then go straight to the following one, essentially without a break. Given also the compact 20-minute duration of the excerpt that I performed, there was an implication of a demonstration, of presenting a sample from a work which, despite the use of a sophisticated sound system, could not reach its full potential. On the contrary, in the concert at Saint Andrew's I had the opportunity to present a variation lasting twice as much. The pressure of time was absent and the listeners arrived more relaxed and appeared more committed to the music. Within an extended timeframe the piece developed slower, lifting the sense of urgency and allowing the idea of contemplation and stillness to be explored with more intensity. During the performance, the church's bells rang twice and added an uncontrolled, yet relevant and probably expected, element to the piece. Nevertheless, this addition emphasized the context of the work in a particular way, it determined its relation with the sound sources and the performance space by leaving less room for open interpretation. In contrast, in the darkness of Holodeck the recorded and processed sounds of bells were perceived in an ambiguous manner. This added a visceral dimension which, instead of clarifying the sound source, and possibly the composition's context, transformed the bells into a mysterious aural entity.

Starting from the initial church organ recordings and leading up to the performance in Chippenham, *Silentium* investigated the acoustic and physical properties of the church, together with the related religious ideas. The church has always been a performance space for religious rituals accompanied by sacred music. With the recent redundancy of the Christian service, and its function in bringing communities together, the church occasionally replaces the concert hall as a space for secular music performances (Weston 2014). Besides addressing to fellow sound practitioners in the exclusive setting of a symposium, the presentation of *Silentium* in Saint Andrew's made the work also accessible to an alternative audience. With this work, my research underlines the necessity to examine religiosity and spirituality as a driving force for composing electroacoustic music, and to initiate a discourse about sacred and secular spaces in relation to acousmatic music performance and listening.

7.10 Electroacoustic music and spirituality of sound

From a theological perspective, religious and spiritual listening is described as a revelation of a divine presence, a communication with god (Hackett 2012). Similarly, acousmatic sound is a tool for accessing the supernatural, invisible world of spirits (Kane 2014). With spirit and music consisting of the same ethereal substance - sound - they both make a link with the physical world hence uniting the soul with the body (Cobussen 2008: 44). Sound and music relate to the mysterious and the transitory, a relation intensified in the acousmatic setting of electroacoustic concerts where sound remains invisible thus making music more atmospheric (Kane 2013).

Harvey's interrogations into compositions with religious context stimulate constructive criticism and set crucial questions. Are these pieces of music rituals in their own right or contributions to pre-existing ceremonies? Are they functioning as aid to meditation and prayer or have an independent aesthetic meaning and goal? Harvey clarified that his compositional interest does not lay in accompanying prayer and had no intention in polarizing the listeners by forcing their attention to any particular religious practice. For him, music and religion form a continuity, accessible to both believers and non-believers (Dowens 2009: 39). Transformed rituals can become a superficial representation of the sacred, occasionally leading to excruciating experiences. A music performance can be a ritual in its own right by offering something beyond aesthetical pleasure, a dialogue that will lead to an "almost supernatural communication" (Toop 2004: 21-22).

Religion and music are both emerging from practice and are not results of pre-existing theories. Their meanings and purposes evolve throughout time and in relation to individual social settings (Hackett 2012). Etymologically, music is the summoning of the Muse, a godly creature existing in another realm. However, what can be perceived as sacred or spiritual in art is not necessarily the expression of the divine, but, perhaps paradoxically, an exploration of the deepest human dimensions. Moreover, music has the potential of expressing what is fundamentally human (Begbie 2013: 97). Consequently, the concept of the divine can be discarded and transcendence is not necessarily understood in religious terms but as a physical experience of being human, in combination with the acknowledgement of humankind's "collective existence as

social beings”. The sacred in art remains un-portrayed, un-symbolized and hidden in the ineffable (Malik 2014).

Author and researcher Marcel Cobussen (2008) writes that music is neither completely godly, nor entirely earthly but instead creates and maintains an open space between the human and the divine world. Moreover, he argues that music is not necessarily a tool to access a spirit world but an actual experience of the spiritual. Spirituality in music is a floating concept, constantly transforming, escaping categorization and clear definition. Therefore, there is no spiritual music as such; it is the relationship with music that can be spiritual, the merging of object and subject, of sound and listeners, what in religious terms can be described as unity. Spiritual listening functions beyond logic, it remains unexplained as it can only be sensed. Like religion and music, spiritual listening is not based on theory, it is an action, something that does not pre-exist but happens in a “here-and-now” world.

7.11 Return to silence

Composing and performing *Silentium* negotiated the aforementioned ideas with the purpose of highlighting the spirituality of electroacoustic music and bridging religious concepts with contemporary thinking. During the process, I was asked - by fellow artists and members of audiences - how do I position *Silentium* in a technology-oriented world, in a materialistic society which aims at and glorifies immediate and definite results. In other words, how are my research methods and outcomes contributing to electroacoustic music practice and theory without quantifying or clearly defining spirituality and the sacred. Combining technological tools - as ultimately my techniques remain fundamentally technological - with spiritual aims is a method that brings together the disciplined and the intuitive. Connecting criticism, a sceptical mind-set and analytical thinking with empirical processes and profound emotional reactions is recognized as fruitful and valid in current research practices (Finnegan 2003). In the question of how the audience’s feedback and responses can be measured and identified, the answer is they should not be. The reality of experience is inaccessible to scientific methods but at the core of artistic exploration (Small 1977: 97). Quantification, thus, is not only

practically impossible but would also be misleading, turning the attention away from the essential reality of music, its unexplained magic (Small 1977: 155).

Silentium embraces the impossibility of expressing the ineffable and aims at triggering a spiritual experience as described above, without direct dependence on religious connotations and with an openness to an unforeseen other. The sounds of church organs and bells initiate a quest for transformation, a search for discovering something that exists between the somatic and the ethereal. *Silentium*'s ambiguous and indefinite silence creates a physical and imaginary space where Harvey's "Preces Voco" can occur. It manifests the unexpressed, it is, from a theological perspective, the voice of god or the fear of absolute void, soundless yet audibly present (Michelsen Foy 2010), it is the expanded reality of the world of spirits (Blacking 1977: 51) the border-zone between the physical and supernatural (MacCulloch 2013: 231). *Silentium* evolves in and beyond silence as its sounds emerge from the inaudible and ultimately return to it.

Epilogue

“Man’s unending quest for knowledge [...] is a source for great tension, for it brings with it constant anxiety, hardship, grief and disappointment, as the final truth can never be known. (Tarkovsky 1989: 198)

I understand concluding a PhD research is an opportunity to be doubtful rather than to express certainties. Despite the thorough undertaken investigation and the variety and intensity of experiences generated, the outcome of the research is not a resolution but a revision of its initial questions, without any possibility of getting concrete and satisfactory answers. The ideas generated and interrogated during my practice-based and qualitative research, continue to be fragmented, open-ended and incomplete; there are no conclusions drawn. This dynamic process where doubt and ambiguity increase, remains a struggle. The deeper I am submerging into the area of study, the further I am moving away from the illuminated surface, the darker and more mysterious it becomes. Unlike the Odyssey, the journey of the research did not end up in an Ithaca but continues ceaselessly and irrepressibly.

Final reflections

Throughout the research, a crucial task and constant challenge was to avoid 'romanticising' spirituality and rituals. Moreover, it was to not objectify quantitative research since this could be seen to transform music from a profound experience to a strictly framed object of study. The balance between artistic intuition and sentiment and scholarly rigour and analysis was primarily achieved through writing the thesis. This process allowed me to pin down and articulate abstract and inchoate artistic thoughts and to construct a coherent narrative: it was a critical commentary on the creative practice evidenced in field recording, experimenting in the sound studio and performing in concerts. Writing was the fundamental tool that gave shape to the research. The written thesis is a discourse that critically reflects and documents within a methodological framework the acousmatic composition.

The four compositions of the portfolio approached the subjects of study from alternative perspectives and examined diverse areas of interest. The compositional methods were theoretically informed by a variety of sources, from history, mythology and ritual

studies, to religious, anthropological and socio-political concepts. The ritual of Anastenaria was a common reference point and had a pivotal influence on all compositions and their public performances. As the Anastenaria musicians are not aware of how their playing makes the fire-walkers enter into trance and walk barefoot on burning coals, similarly I am not conscious of how my music affects its listeners, how intense their experience can, or cannot, be. Inspired by Anastenaria, what I described as Acousmatic Musicking - not a theory, but a practical way of engaging with electroacoustic music - aims at creating mystery, inspiring imagination and establishing a relationship between the physical and the supernatural world and between composer and audience. The composer is “the master of the game” (Rouget 1985: 112), he or she enables and controls sound, but invites audiences into a dialogue where the latter respond through listening. Like Anastenaria, Acousmatic Musicking is performed in a social setting, nevertheless, it is interpreted on a deeply personal level. While the social setting of electroacoustic music was placed under scrutiny, it was impossible, and I was unwilling, to find an accurate way of calculating or quantifying the audiences’ responses to my compositions. It is my conclusion that the strategy of avoiding quantification enhances the ritualistic dimension of the electroacoustic music concert and can elevate it to what can be described as a sublime experience.

Acousmatic Musicking is socially and technically flexible. During the research, I performed in diverse spaces: churches, former churches transformed into galleries, spaces designed and built exclusively for electroacoustic music diffusion and multi-channel compositions, underground punk venues, theatres, cultural centres and university auditoriums. Each concert had unique characteristics that drastically affected the interpretation of the performed compositions: quality of sound system, type of event, architectonic properties of performance spaces and, most importantly, the audience’s experience, their response to the work through the act of profound listening. Through my experience of performing my compositions in a plethora of environments it became evident that the quality and impact of an electroacoustic music concert is not a priori guaranteed in a specific type of space, technical set up or social situation. There are always unique possibilities that create a sense of mystery and unpredictability that is enhanced by the invisibility of the acousmatic setting.

The four compositions have their roots in the sonic exploration of an environment; rural nature in *Everything emanating from the Sun*, the ruins of an ancient Greek temple in *In*

Aulis, industrial buildings in *Shift* and churches in *Silentium*. Through the comparison and contrast between outdoors rural and indoors urban locations, natural and mechanical sound sources, functioning and abandoned factories and secular and sacred buildings, the research investigated how sounds relate to and affect their environment, how this relation informs electroacoustic music practice and how music, in its turn, affects the environments where it is performed. The field recordings started as explorations of aural properties with the practical purpose of recording sonic material, but eventually transformed the explored locations into places of ritual where performative actions were linking the physical world to an unseen realm accessed through sound and listening. The act of recording, and reanimating the recorded sound files in the studio, transformed the original identity of the sound sources and their locations. The ambience of an empty church, the rhythmic noise of a machine, the rustling of leaves, were no longer merely part of a mundane reality, but hierophanies, sonic manifestations of sacred realities.

By the end of the research it had become clear to me that the electroacoustic composition, the outcome of the studio work, enacts a musical ritual by marking a communal time and space. The value and meaning is not embedded in the fixed media but triggered during the listening process. It is not predetermined in the studio and transferred to the performance space but is to be discovered in the “here-and-now” condition of a concert. The internal dynamic and structure of the audio file controls the ritualistic process and triggers a shared aesthetic experience that unites feeling and form (Kapferer 2004). In multiple performances with the same sonic material, the intellectual and emotional responses of the audiences varied significantly due to the differences of the performance settings. The audio file does not change from one performance to another, but its impact significantly does, depending on the specificity of each performance and the level of audience engagement. Although “fixed”, the audio file always leads to varied responses that can range from indifference and boredom to a feeling of awe and ecstasy that can lift listeners to spiritual realms.

Spirituality, however, is not the aim of the music, but an indication that something elusive and indescribable is somehow affecting the listeners. Ultimately, my compositions are not, and cannot be, labelled as “spiritual music”, despite their contextual framework, and there was never such intention. The definition of what is spiritual, or what type of connection with the works can be regarded as spiritual,

remains open to multiple understandings and personal interpretation. Spirituality is not a static condition but an action that escapes a categorical framework, it is never defined but always in the process of being defined. Being spiritual is about being doubtful, a nomad wondering in uncharted territories (Cobussen 2008). Acousmatic Musicking does not guarantee a spiritual experience neither it is the exclusive tool to reach transcendental states. It enables an opening of an invisible and mysterious world, accompanied by an invitation to explore it. As a ritualistic process, this exploration can potentially lead to a “transformation in the structure of consciousness, by effectuating a particular and exceptional type of relation of the self to the world” (Rouget 1985: 123).

This relation was investigated throughout the research, focusing on and underlining the importance of establishing social relationships within the community of practice, including also, or perhaps mainly, the audiences. Through my work I understood that electroacoustic music composers should not, and cannot, work in a social void. Like all composers, to make their music relevant to their contemporaries, the problems they must deal with are not so much musical, or technical, but social (Blacking 1977: 104). These issues were addressed from the very early stages of composing the four works, during their inception and field recording of the sonic material. The collaborative nature of the residencies in Mooste and Kaunas and the social aspect of the residencies in Greece and Prague, drastically influenced the development of the compositions as I was receiving constructive criticism from peers that generated exchanges of ideas and techniques. Nevertheless, working in solitude was an equally important activity that should not be undervalued. Studio work is the compositional phase for focused sonic experimentation and formation of the works, in combination with reflection and additional theoretical investigation. The compositions of the portfolio were sprouted in social environments, formed in the isolation of a studio and per-formed in numerous public events.

The publications

As mentioned in previous chapters, three of the four compositions of the portfolio are published and *In Aulis* is planned to be released on CD at the beginning of 2018. Reviews on my recent releases generate additional discourse as they reflect on several

conceptual underpinnings of the works. The reviews reveal that in private auditions my compositions succeed in transforming “apparent monotony into a supernatural occurrence” (Ricci 2017) and that “the listeners, in their dedication to the experience, can generate their own images and means of understanding” (Chuter 2017).

Further research

On April 19, 2017, I was invited in Vilnius, Lithuania to perform the full version of *Silentium* at “Jauna Muzika”, a festival that has been promoting contemporary composition and electroacoustic music since 1992. The concert took place at the Monastery of Apostles St. Philip and St. Jacob (Figure 29) and allowed me to further explore the church as a space for performing secular music. The piece was performed on a quadraphonic sound system in the presence of approximately 30 people.

Some materials have been removed due to 3rd party copyright.
The unabridged version can be viewed in Lancaster Library -
Coventry University.

Figure 29. Monastery of Apostles St. Philip and St. Jacob, Vilnius, Lithuania

This performance is a characteristic example of the full potentials of Acousmatic Musicking. According to a descriptive review of the concert, after entering the church there was a sudden realization that something special was about to happen because the space was inviting the listeners to stay silent. This led to an abolishment of pre-fixed thoughts in preparation for an original experience. The reviewer described an escape

from the physical properties of the body that resulted in a mid-air floatation. He also experienced a loss of the sense of time that continued after the sounds had stopped, encouraging deep and active thinking (Digimas 2017). The review reveals that the concert had some of the characteristics of a mystical experience. Profound listening led to a loss of sense of physical self and passing time. Simultaneously, the power of sound, and its apparent absence, enabled a transformation of perception. Moreover, the church's aesthetic properties were expanded and the standardized expectations from electroacoustic music were lifted, thus providing the audience a platform for a unique musical experience.

The concert at Jauna Muzika was the final artistic outcome that epitomized the research but simultaneously it signifies the beginning of new explorations. Firstly, it confirmed that a church is an effective and appropriate performance space for electroacoustic music, primarily because it creates a sense of worshipful silence that intensifies active listening. Additionally, electroacoustic music performed in churches emphasises the reciprocal communication with the divine, enhanced also by the acousmatic setting. When the churches are approached as places that call for silence, attention and communication, and not simply as sceneries with peculiar acoustic properties, acousmatic concerts can become a celebration of the unseen, a liberating process of transformation. This research suggests that the principal function and value of acousmatic music can be the cathartic encounter with a divine entity, an entrance into an invisible world, leading to a transformation of self and the bonding of communities of practice. How can this encounter be examined further? Can the divine entity be identified? Does the invisible world have borders? Can the communities expand?

To investigate these questions, further research and artistic practice will aim to establish a relationship between electroacoustic music and theology. Theology is thinking about questions raised by religions (Ford 2013: 3) and my suggestion is that examining electroacoustic music as a type of religion, a re-connection with the immaterial world, is a method of widening the framework of electroacoustic composition and acousmatic music performance. Although not a prominent player in contemporary theology, music is a way to investigate theological enquiries (Begbie 2013: 1) and my new hypothesis is that acousmatic music particularly, with its emphasis on the unseen and divine, can be an even more effective tool in providing answers to theological questions.

New research will add a theological framework to the current technological, sociological and musicological approaches on electroacoustic music and will inform its social and aesthetic context. The performance of *Silentium* in Vilnius brought two communities together, the one of Jauna Muzika festival, that includes people with an interest in contemporary and electroacoustic music, and the one the Monastery of Apostles St. Philip and St. Jacob, where its members had little or no previous experience in acousmatic performances. Similarly, the INTIME concert in Saint Andrew's gave the opportunity to the residents of Chippenham for a rare, to them, experience of electroacoustic music. Therefore, presenting electroacoustic music in churches makes it accessible to new audiences and the concerts become a platform for social interaction between different communities. However, arranging sporadic events is not sufficient to guarantee this interaction; there should be a systematic effort towards this direction. Nevertheless, the aim of organizing frequent performances in temples might raise a risk in reducing them into cliché events that will commodify their ritualistic power. Churches, or any type of temple, should not necessarily be the exclusive venues for electroacoustic music. As my current research highlighted, new insights can be gained in various performance conditions.

On a conceptual level, the new research will place subjects like the immateriality of sound and the ineffability of the musical experience under theological scrutiny. The themes of omnipresence, sacredness, spirituality, contemplation and prayer will be explored from a theological perspective to aesthetically and morphologically inform duration, structure and sonic spatiality of acousmatic compositions.

It would be impossible to predict the trajectory of this new path and where it may lead. Nonetheless, the desire for truth and mystical knowledge, the search for the amorphous and the invisible, will continue with the acknowledgement that there will always be elusive something that will escape comprehension and definition. In my research, I engaged into powerful experiences of acousmatic sound. And this is my suggestion for further examination: to experience electroacoustic music and, like a spiritual nomad, explore the uncharted worlds it creates.

References

- Angelopoulos, T. (2009) *The dust of time*. [DVD] United Kingdom: Curzon Artificial Eye
- Aldridge, D. (2006) 'Music, consciousness and altered states' in *Music and altered states: Consciousness, transcendence, therapy and addiction*. ed. by Aldridge D. and Fachner J. London: Jessica Kingsley Publishers, 9-15
- Attali, J. (1985) *Noise: The political economy of music*. trans. by Massumi, B. University of Minnesota Press: Minnesota and London
- Barz, G. F. (1997) 'Confronting the Field (Note): In and Out of the Field' in *Shadows in the field: New perspectives for fieldwork in ethnomusicology*. ed. by Barz G. F. and Cooley T. J. Oxford: Oxford University Press, 45-62
- Becker, J. (2004) *Deep listeners: Music, emotion and trancing*. Bloomington IN: Indiana University Press
- Begbie, J. (2013) *Music, Modernity and God: Essays in Listening*. Oxford: Oxford University Press
- Bell, C. (2009) *Ritual theory, ritual practice*. Oxford: Oxford University Press
- Benson, B. E. (2003) *The improvisation of musical dialogue: A phenomenology of music*. Cambridge: Cambridge University Press
- Blacking, J. (1977) *How musical is man?* Seattle and London: University of Washington Press
- Bohlman, P. V. (2002) *World music: A very short introduction*. Oxford: Oxford University Press
- Borgdorff, H. (2008) *Artistic research and Academia: an uneasy relationship*. [online] available from: http://www.ahk.nl/fileadmin/download/ahk/Lectoraten/Borgdorff_publicaties/an:uneasy:relationship.pdf [27 March 2015]
- Bradley, F. (2015) 'Halim El Dabh: An Alternative Genealogy of Musique Concrète' *Ibraaz*. [online] available from http://www.ibraaz.org/essays/139#_ftnref21 [29 July 2016]
- Bumšteinas, A. (2016) *Organ safari Lituanica*. [CD]. Russia: Intonema

- Carlyle, A. (2013) 'Steve Feld' in *In the Field: The Art of Field Recording*. ed. by Carlyle, A. and Lane, C. Devon: Uniformbooks, 201-214
- Cascone, K. (2014) 'Transcendigital Imagination: Developing Organs of Subtle Perception' *Interference Journal*, Issue 4, [online] available from: <<http://www.interferencejournal.com/articles/sound:methods/transcendigital:imagination:developing:organs:of:subtle:perception>> [2 November 2014]
- Cascone, K. (2015) 'Lunar Mansions, for organ and sine waves' *The Organ of Corti*. held on 29 October 2014 at The Union Chapel, London
- Chadabe, J. (2000) 'Remarks on Computer Music Culture'. *Computer Music Journal*, 24(4), 9:11. [online] available from <<http://www.jstor.org/stable/3681550>> [30 December 2016]
- Chion, M (2016) 'Requiem' *Café Oto performance*. held 11 May at Café Oto, London
- Chondros, T. and Katsiani, A. (2015) 'Δύο διαλέξεις' [Two lectures], Εμβοές [Tinnitus] fanzine, issue #1: Amfissa and Thessaloniki
- Chuter, J. (2017) 'Review: Yiorgis Sakellariou: Silentium' *ATTN:Magazine*. [online] available from <<http://www.attnmagazine.co.uk/music/11444>> [4August 2017]
- Cobussen, M. (2008) *Thresholds: Rethinking spirituality through music*. Aldershot: Ashgate
- Corley Schnapp, D. (2013) 'Spiritual Listening to Inner Messages: What Do We Know So Far?' in *On Listening*. ed. by Carlyle, A. and Lane, C. Devon: Uniformbooks, 160-163
- Cooley, T. J. (1997) 'Casting Shadows in the Field: An Introduction' in *Shadows in the field: New perspectives for fieldwork in ethnomusicology*. ed. by Barz G. F. and Cooley T. J. Oxford: Oxford University Press, 3-19
- Davis, E. (1998) *Techgnosis: Myth, magic and mysticism in the age of information*. London: Serpent's Tail
- Davis, E. (2010) *Nomad Codes: Adventures in Modern Esoterica*. Portland: Verse Chorus Press
- D'Aquili, E. and Newberg, A. B. (1999) *The mystical mind: Probing the biology of religious experience*. Minneapolis: Fortress Press

- Deep Listening Institute (n.d.) *So what is Deep Listening?* [online] available from <http://deeplistening.org/site/content/about> [20 March 2017]
- Del Prete, M. (2015) 'Selva di varte intonazioni' *INTIME 2015 Symposium*. held 24-25 October 2015 at Coventry University
- Digimas, D. (2017) 'Silentium: garsas ir jo šešėliai' [Silentium: Sound and its shadows] *Literatūra ir menas* [Literature and Art] [online] available from <http://literaturairmenas.lt/2017:04:28:nr:3613/3959:muzika/6074:dominykas:digimas:silentium:garsas:ir:jo:seseliai> [10 May 2017]
- Doore, G. (1987) 'The ancient wisdom in shamanic cultures'. in *Shamanism*. ed. by Nicholson, S. Wheaton and Madras: Quest Books, 3-16
- Dowens, M. (2009) *Jonathan Harvey: Song Offerings and White as Jasmine*. Surrey: Ashgate
- Driver, T. F. (1998) *Liberating rites: Understanding the transformative power of ritual*. Colorado and Oxford: Westview Press
- Dyer, G. (2012) *Zona: A Book about a Film about a Journey to a Room*. Edinburgh: Canongate
- EARS 2 (n.d.) *Elektronische Musik* [online] available from <http://ears2.dmu.ac.uk/encyclopaedia/elektronische:musik/> [23 February 2017]
- Eliade, M. (1957) *The Sacred and the profane: The nature of religion*. trans. by Trask, W. Orlando: Harcourt Inc
- Emmerson, S. (2016) 'Ritual, sound and music' in *Colloquium: Sound Art and Music*. ed. by Gardner, T. and Voegelin, S. Winchester: Zero Books, 124-127
- Eriksen, T. H. (2001) *Tyranny of the Moment: Fast and Slow Time in the Information Age*. London: Pluto Press
- Euripides (2008) 'Iphigeneia at Aulis' in *Bacchae and Other Plays* trans. by James Morwood, Oxford: Oxford University Press
- Fachner, J. (2006) 'Music and altered states of consciousness: an overview' in *Music and altered states: Consciousness, transcendence, therapy and addiction*. ed. by Aldridge D. and Fachner J. London: Jessica Kingsley Publishers, 15-38
- Feldman, M. (2000) *Give my regards to eighth street*. Cambridge: Exact Change

- Finnegan, R (2003) 'Music, Experience, and the Anthropology of Emotion' in *The cultural study of music – a critical introduction*. ed. by Clayton, M., Herbert, T. and Middleton, R. London and New York: Routledge, 353-363
- Fischer-Lichte, E. (2008) *The transformative power of performance: A new aesthetics*. trans. by Jain, S. I. London and New York: Routledge
- Ford, D. F. (2013) *Theology: A Very Short Introduction*. Oxford: Oxford University Press
- Geertz, C. (1993) *Local knowledge*. rev. edn. London: Fontana Press
- Green, J. and Stinson, S. W. (1999) 'Postpositivist research in dance' in *Researching dance: Evolving modes of inquiry*. ed. by Fraleigh S. H. and Hanstein P. Pittsburgh: University of Pittsburgh Press, 91-123
- Griffiths, P (1978) *A concise history of modern music: From Debussy to Boulez*. London: Thames and Hudson
- Gubaidulina, S. (2013) 'Breakfast with Gubaidulina' *The rest is noise: Politics and spirituality in the late 20th century*. held 2-3 November 2013 at Southbank Centre, London
- Hackett, R. I. J. (2012) 'Sound, music, and the study of religion' *Temenos Vol. 48 No. 1*, 11:27. [online] available from < <http://ojs.tsv.fi/index.php/temenos/article/view/6944> > [29 July 2016]
- Hale, S. (2007) *Sacred space, Sacred sound: The Acoustic Mysteries of Holy Places*. Wheaton, IL: Quest Books
- Hammer, A. (2012) 'Researching spiritual performance'. *Performance and Spirituality Volume 3, Number 1*. [online] available from <<https://www.utdl.edu/ojs/index.php/pas/article/viewFile/48/17>> [17 November 2016]
- Haseman, B. (2007) 'Rupture and recognition: Identifying the performative research paradigm' in *Practice as research: Approaches to creative arts enquiry*. ed. by Barrett E. and Bolt B. London and New York: I B Tauris, 147-156
- Harvey, J. (2005) 'Sketches for Mortuos Plango, Vivos Voco'. [online] available from: <<http://www.bbc.co.uk/radio3/cutandsplce/mortuos.shtml>> [24 November 2014]
- Hegarty, S. (2015) 'Rain Choir: The St. James Variation' *Sound/Place exhibition*. held May 5 2015 at Goldsmiths University

- Hendy, D. (2013) *Noise: A human history of sound and listening*. London: Profile Books
- Herl, J. (2004) *Worship Wars in Early Lutheranism*. Oxford: Oxford University Press
- Hill, P. (2000) *Stravinsky: The Rite of Spring*. Cambridge: Cambridge University Press
- Hugill, R. (2015) 'Who are we writing for?' *Institute Of Composing Journal*, Issue #3 [online]. Available from:
<<http://www.instituteofcomposing.org/journal/issue:3/who:are:we:writing:for/>>
[12 March 2015]
- Ingold, T. (2011) *Being Alive: Essays on movement, knowledge and description*. London and New York: Routledge
- James, W. (2007) *The Varieties of Religious Experience*. Stilwell, KS: Digireads
- Kane, B. (2013) 'Eleven Theses on Sound and Transcendence' *Current Musicology*, No. 95 (Spring 2013) [online] available from:
<<https://currentmusicology.columbia.edu/article/eleven:theses:on:sound:and:transcendence/>> [30 March 2017]
- Kane, B. (2014) *Sound Unseen: Acousmatic sound in theory and practice*. Oxford: Oxford University Press
- Kapferer, B. (2004) 'Ritual dynamics and virtual practice: Beyond representation and meaning' in *Ritual in its own right*. ed. by Handelman, D. and Lindquist, G. New York and Oxford: Berghahn Books, 35-54
- Karkowski, Z. (1992) *The method is science, the aim is religion*. [online].
< <https://fyours.wordpress.com/2011/01/15/the:method:is:science:the:aim:is:religion/>>
[22 February 2017]
- Kendall, G. (2011) 'Bridging a Shamanic Worldview and Electroacoustic Art'. *Proceedings of the 2011 Electroacoustic Music Studies Conference, Sforzando! New York*. [online]. Available from:
< http://www.ems-network.org/IMG/pdf_EMS11_Kendall.pdf> [22 April 2015]
- Kisliuk, M. (1997) '(Un)Doing Fieldwork: Sharing Songs, Sharing Lives' in *Shadows in the field: New perspectives for fieldwork in ethnomusicology*. ed. by Barz G. F. and Cooley T. J. New York and Oxford: Oxford University Press, 23-44
- Landy, L. (2007) *Understanding the art of sound organization*. Cambridge, Massachusetts: The MIT Press

- Landy, L. (2011) 'Art for Goodness(') Sake: It's your tea party and you can cry if you want to'. *Proceedings of the Electroacoustic Music Studies Conference, Sforzando! New York*. [online]. Available from:
<http://www.ems.network.org/IMG/pdf_EMS11_Landy.pdf> [27 December 2014]
- Levi-Strauss, C. (1995) *Myth and Meaning: Cracking the Code of Culture*. New York: Schocken Books
- López, F. (2010) 'Profound Listening and Environmental Sound Matter' in *Audio culture: readings in modern music*. ed. by Cox C. and Warner D. New York and London: Continuum, 82-87
- López, F. (2010) *Machines* [CD]. USA: Elevator Bath
- López, F. (2013) 'Wine and dust (excerpt) 2001' in *On Listening*. ed. by Carlyle, A. and Lane, C. Devon: Uniformbooks, 48-50
- Lucciano, A. (2000) *Jani Christou: The works and temperament of a Greek composer* trans. by Dale, C. New York and London: Routledge
- Lucier, A. (1995) 'Careful Listening is More Important than Making Sounds Happen' in *Reflexions: Interviews, Scores, Writings*. Cologne: Edition MusikTexte, 430
- MacCulloch, D. (2013) *Silence: A Christian History*. London: Penguin Books
- Makrakis, B. (1982) *Fire dances in Greece*. Heraklion: Makrakis
- Malik, K. (2014) 'The sacred in art is about more than religion'. *The Guardian* [online] available from
<<http://www.theguardian.com/commentisfree/belief/2014/mar/18/sacred:art:religion:humannans>> [23 March 2016]
- Maraver, E. (2015) *Underground Variations*. [online]. Available from
<<https://echomusicrecordings.wordpress.com/online/releases/enrique:maraver:underground:variations/>> [28 December 2015]
- Michelsen Foy, G. (2010) *Zero decibels: The quest for absolute silence*. New York: Scribner
- Möller, A. (2003) *Musik für orgel und eine(n) tonsetzer(in)*. [CD]. Germany: Edition Wandelweiser
- Moore, V. (1964) 'Introduction'. In: Steiner, R. *The arts and their mission*. Great

Barrington, MA: Anthroposophic Press

Neill, B. (2004) 'Breakthrough beats: rhythm and the aesthetics of contemporary electronic music' in *Audio culture: readings in modern music*. ed. by Cox C. and Warner D. New York and London: Continuum, 386-391

Normandeau, R. (2014) 'The ritual of the electroacoustic music concert' *Proceedings of the Electroacoustic Music Studies Conference, Sforzando! New York*. [online]. Available from: <http://www.ems.network.org/ems14/ems14_programbooklet.pdf> [7 July 2015]

Pareles, J. (1998) 'The Rhythm Century: The Unstoppable Beat'. [online]. Available from: <<http://www.nytimes.com/1998/05/03/arts/pop:jazz:the:rhythm:century:the:unstoppable:beat.html>> [15 January 2015]

Pilch, J. (2006) 'Music and trance' in *Music and altered states: Consciousness, transcendence, therapy and addiction*. ed. by Aldridge D. and Fachner J. London: Jessica Kingsley Publishers, 38-50

Prévost, E. (2011) *The first concert: An adaptive appraisal of a Meta Music*. Essex: Copula

Pua, P. (2016) 'The silent God of Ingmar Bergman and Andrei Tarkovsky' *Four By Three – Issue 6: Silence* [online] available from <<http://www.fourbythreemagazine.com/issue/silent-god-of-bergman-and-tarkovsky>> [6 November 2016]

Reznikoff, I. (2005) 'On primitive elements of musical meaning' *The Journal of Music and Meaning JMM* 3 [online] available from <<http://www.musicandmeaning.net/issues/showArticle.php?artID=3.2>> [18 March 2017]

Ricci, M (2017) 'Yiorgis Sakellariou – Stikhiya' *Touching Extremes* [online] available from <<https://touchingextremes.wordpress.com/2017/05/24/yiorgis:sakellariou:stikhiya/>> [26 May 2017]

Rice, T. (2014) *Ethnomusicology: A very short introduction*. Oxford: Oxford University Press

Robair, G. (2006) 'In the Time of Bells with Steven Feld' *Electronic Musician* [online] available from <<http://www.emusician.com/artists/1333/in:the:time:of:bells:with:steven:feld/36204>>

[21 June 2016]

Roden, S. (2005) 'Active Listening' *In Between Noise* [online] available from <<http://www.inbetweennoise.com/texts/active:listening/>> [19 March 2017]

Rouget, G. (1985). *Music and Trance: A theory of the relations between music and possession*. trans by Biebuyck, B. and Rouget, G. Chicago: University of Chicago Press

Sakellariou, Y. and Vojtěchovský, M. (n.d.) *Playlist by creator: Yiorgis Sakellariou* [online] available from < <http://sonicity.cz/en/playlists/creator/230>> [4 August 2016]

Sakellariou, Y. (2016) *Everything emanating from the Sun* [online] available from < <http://www.cronicaelectronica.org/releases/102>> [26 August 2017]

Sakellariou, Y. (2016) *Shift* [online] available from < http://www.notype.com/drones/cat.e/pan_096/> [5 May 2017]

Sakellariou, Y. (2016) *Silentium*. [CD]. USA: Pogus Productions

Sakellariou, Y. 'Silentium: Exploring Spirituality in Electroacoustic Music' *Sonic Field* [online] available from < <http://sonicfield.org/2017/02/silentium-exploring-spirituality-in-electroacoustic-music/>> [2 August 2017]

Schaeffer, P. (2012) *In search of a concrete music*. trans. by Dack, J and North, C. Berkeley: University of California press

Schafer, R. M. (1973) *The music of the environment*. Vienna: Universal Edition

Schafer, R. M. (1977) *Soundscape: Our Sonic Environment and the Tuning of the World*. Rochester, Vermont: Destiny Books

Schlothauer, B. (2003) *Abregisrieren*. [CD]. Germany: Edition Wandelweiser

Small, C (1977) *Music, society, education*. Middletown, Connecticut: Wesleyan University Press

Small, C. (1987) *Music of the common tongue: Survival and celebration in Afro-American music*. New York: Riverrun Press

Small, C. (1998) *Musicking: The meanings and performance of music*. Middletown, Connecticut: Wesleyan University Press

Steiner, R. (1964) *The arts and their mission*. Great Barrington, MA: Anthroposophic Press

- Stephenson, B. (2015) *Ritual: A very short introduction*. Oxford: Oxford University Press
- Storr, A. (1992) *Music and the mind*. London: Harper Collins Publishers
- Stravinsky, I. (1947) *Poetics of Music*. trans. by Knodel, A. and Dahl, I. Cambridge: Harvard University Press
- Swedenborg, E. (2001) *Life in Animals and Plants: A translation of extracts from chapter nineteen of The Apocalypse Explained by Emanuel Swedenborg*. trans. by Chadwick, J. London: The Swedenborg Society
- Takemitsu, T. (1995) *Confronting silence: Selected writings*. trans. by Glasow, G. and Kakudo, Y. Lanham, Maryland: The Scarecrow press, Inc
- Tarkovsky, A. (1966) *Andrei Rublev*. [DVD] United Kingdom: Curzon Artificial Eye
- Tarkovsky, A. (1979) *Stalker*. [DVD] United Kingdom: Curzon Artificial Eye
- Tarkovsky, A. (1989) *Sculpting in time*. trans. by Hunter-Blair, K. Austin: University of Texas Press
- Titon, J. T. (1997) 'Knowing fieldwork' in *Shadows in the field: New perspectives for fieldwork in ethnomusicology*. ed. by Barz G. F. and Cooley T. J. New York and Oxford: Oxford University Press, 87-100
- Tolstoy, L (1987) *A confession and other religious writings*. trans. by Kentish, J. London: Penguin Books
- Toop, D. (1995) *Ocean of Sound: Aether talk, Ambient sound and Imaginary worlds*. London: Serpent's Tail
- Toop, D. (2004) *Haunted Weather: Music, silence and memory*. London: Serpent's Tail
- Toop, D. (2007) 'To Move Within Sound' in *Autumn Leaves: Sound and the Environment in Artistic Practice*. ed. by Carlyle, A. Paris: Double Entendre, 112-114
- Torres, R. (2016) 'Everything emanating from the Sun'. *Silence and Sound*, [online] available from < <https://silenceandsound.me/2016/04/04/yiorgis:sakellariou/> > [8 November 2016]
- Valsamakis, N. (2010). 'Scenes from a factory' [Σκηνές από εργοστάσιο] *Electroacoustic Music Days 2010*. held 29-31 October 2010 at Ionian University,

Greece

Vélez, D. (2011) *Funza*. [online] available from

<<http://www.impulsivehabitat.com/releases/ihab017.htm>> [28 December 2016]

Viane, E. (2007) 'Chris Watson Interview' in *Autumn Leaves: Sound and the*

Environment in Artistic Practice. ed. by Carlyle, A. Paris: Double Entendre, 86-88

Vojtěchovský, M. (n.d.) *Zvuky Prahy / Sounds of Prague* [online] available from

< <http://sonicity.cz/>> [4 August 2016]

Weston, V (2015) 'Burbblings from the organ hunter' *Hannah Marshall* [online]

available from

<http://www.hannahmarshall.net/Hannah_Marshall/Burbblings.html> [29 June 2016]

Weston, V. (2014) 'A case of churches as performance spaces' *Tuning out blog* [online]

available from

<<https://tuningoutblog.wordpress.com/2014/04/14/a:case:for:churches:as:performance:spaces/>> [29 June 2016]

Whetham, S. (2013) *Hydrostatic* [CD]. Germany: Auf Abwegen

Wishart, T. (1996) *On Sonic Art*. London and New York: Routledge

Wishart, T (2014). 'Voice and Text: Experimentation/Transformation - Keynote speech' *INTIME 2014 Symposium*. held 18-19 October 2014 at Coventry University

Wisker, G. (2008) *The Postgraduate Research Handbook*. 2nd ed. Hampshire: Palgrave Macmillan

Wittgenstein, L. (1993) 'Remarks on Frazer's "Golden Bough"' in *Philosophical Occasions 1912 – 1951*. ed. by Klagge, J. and Nordmann, A. Indianapolis: Hackett Publishing Company

Xenakis, I. (1978) *Mycenae Polytope*. 'Iannis Xenakis: Mycenae Polytope'. held 2-5 September 1978 at Ancient Mycenae, Greece

Xenakis, I. (1992) *Formalized music*. Hillsdale, NY: Pendagon press

Xygalatas, D. (2012) *The Burning Saints: Cognition and Culture in the Fire-Walking Rituals of the Anastenaria*. London and New York: Routledge

List of Figures

- Figure 1. Recording with contact microphones in the fields of Mooste, Estonia (page 46)
- Figure 2. The abandoned collective farm near Mooste, Estonia (page 47)
- Figure 3. Water tower at Mooste, Estonia (page 48)
- Figure 4. The hatch door at the bottom of the water tower (page 49)
- Figure 5. Setting up at Y Gallerii in Tartu, Estonia (page 51)
- Figure 6. Loudspeaker at Y Gallerii in Tartu, Estonia (page 51)
- Figure 7. Sonics Immersive Media Lab (SIML), St James Hatcham, Goldsmiths University, London (page 53)
- Figure 8. The ruins in Aulis (page 61)
- Figure 9. Aeolian Harp (page 64)
- Figure 10. Contact Microphones on Fence (page 65)
- Figure 11. Sing post in Aulis (page 65)
- Figure 12. In Aulis (page 68)
- Figure 13. In Aulis – Sections 1 and 2 (page 68)
- Figure 14. The corridors of Pluoštas factory (page 75)
- Figure 15. Brkušić performing in Pluoštas factory (page 76)
- Figure 16. Automatic sewing machines (page 78)
- Figure 17. The room with the automatic sewing machines (page 78)
- Figure 18. ‘Unfitted Dust’ installation, before the opening (page 80)
- Figure 19. ‘Unfitted Dust’ installation, opening of the exhibition (page 80)
- Figure 20. ‘Unfitted Dust’ installation, final days of the exhibition (page 80)
- Figure 21. Setting up at Kaunas Technology University (page 81)
- Figure 22. Silentium sign at Loreta Praha, Prague (page 91)
- Figure 23. Silentium sign at Church of St Joseph (Kostel sv. Josefa), Prague (page 91)
- Figure 24. Organ at Saint Salvator church, Prague (page 96)

Figure 25. Organ at Michael Angel church (kostel sv. Michaela Archanděla), Skryje (page 96)

Figure 26. Organ at Saint Salvator, Academic Parish of Prague (page 97)

Figure 27. Holodeck 3D Audio room at Arts and Media campus, Hamburg University (page 101)

Figure 28. Saint Andrew's Church at Chippenham, UK (page 102)

Figure 29. Monastery of Apostles St. Philip and St. Jacob, Vilnius, Lithuania (page 112)

Appendix I

Audio examples

Everything Emanating from the Sun

Audio Example 1. Contact Microphone on Wired Fence

Audio Example 2. Abandoned Building after Rain

Audio Example 3. Water Tower

In Aulis

Audio Example 1. Aeolian Harp

Audio Example 2. Contact Microphones on Fence

Audio Example 3. Contact Microphone on Sign Post

Audio Example 4. Performing on the Fence

Audio Example 5. Raindrops on the Aeolian Harp

Shift

Audio Example 1. Performing on a Metallic Panel

Audio Example 2. Brkušić Performing at Pluoštas

Audio Example 3. Automatic Sewing Machines

Audio Example 4. Pressing Machine

Audio Example 5. Ironing Machine

Silentium

Audio Example 1. Bells at Petrin Hill

Audio Example 2. Walk on Wooden Boards

Audio Example 3. Organ Improvisation

Appendix II

Ethical Approval Certificates



Certificate of Ethical Approval

Applicant:

Georgios Sakellariou

Project Title:

information collection from peers

This is to certify that the above named applicant has completed the Coventry University Ethical Approval process and their project has been confirmed and approved as Medium Risk

Date of approval:

16 January 2015

Project Reference Number:

P28869



Certificate of Ethical Approval

Applicant:

Georgios Sakellariou

Project Title:

Active Crossover

This is to certify that the above named applicant has completed the Coventry University Ethical Approval process and their project has been confirmed and approved as Medium Risk

Date of approval:

16 January 2015

Project Reference Number:

P30968



Certificate of Ethical Approval

Applicant:

Georgios Sakellariou

Project Title:

Implode residency 2015

This is to certify that the above named applicant has completed the Coventry University Ethical Approval process and their project has been confirmed and approved as Low Risk

Date of approval:

09 September 2016

Project Reference Number:

P31661



Certificate of Ethical Approval

Applicant:

Georgios Sakellariou

Project Title:

Anastenaria 2015

This is to certify that the above named applicant has completed the Coventry University Ethical Approval process and their project has been confirmed and approved as Medium Risk

Date of approval:

25 July 2017

Project Reference Number:

P31890



Certificate of Ethical Approval

Applicant:

Georgios Sakellariou

Project Title:

Artist residency in Prague

This is to certify that the above named applicant has completed the Coventry University Ethical Approval process and their project has been confirmed and approved as Medium Risk

Date of approval:

07 January 2017

Project Reference Number:

P38418